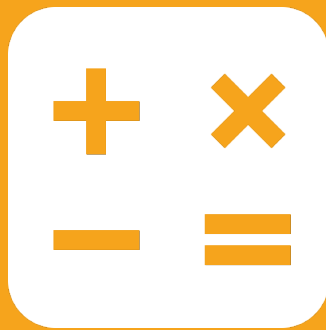


This packet was printed from a link provided for printable resources within the TDOE School Closure Toolkit.

6th Grade Worksheet Bundle:

Printable worksheets that include multiple subjects from a variety of our online solutions, including Study Island, EducationCity, and ReadingEggs





Math Activities

Review the formulas below before completing your assignment.

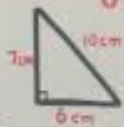
AREA OF A TRIANGLE
FORMULA: $A = \frac{b \times h}{2}$

1. Determine base & height
2. Set up algorithm (formula)
3. Multiply base and height
4. Divide by 2

$b = 6\text{ cm}; h = 7\text{ cm}$

$$\frac{7 \times 6}{2} = \frac{42}{2}$$

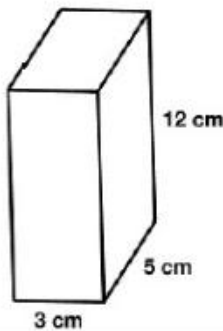
$A = 21\text{ cm}^2$


$$\begin{array}{r} 21 \\ 2 \overline{)42} \\ \underline{-42} \\ 0 \end{array}$$

Find a **percent** of a **number**
given the **part** and **whole**.

part **56** is what **percent** **?** of **total** **70**?

$$\frac{\text{part } 56}{\text{total } 70} = \underline{.80} \text{ or } 80\%$$



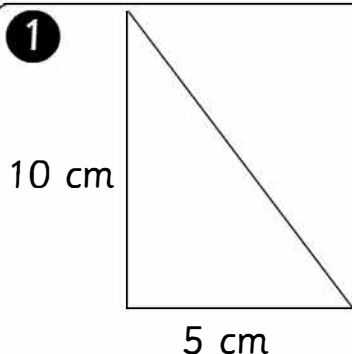
To find the volume of a rectangular prism,
multiply the length by the width by the height.

$$\text{Volume} = l \times w \times h$$

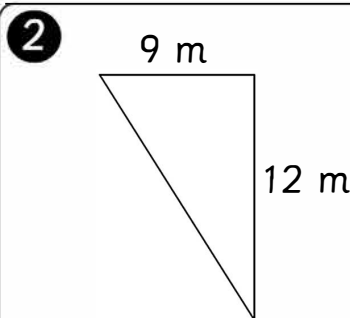
$$\text{Volume} = 3\text{ cm} \times 5\text{ cm} \times 12\text{ cm}$$

$$\text{Volume} = 180\text{ cm}^3$$

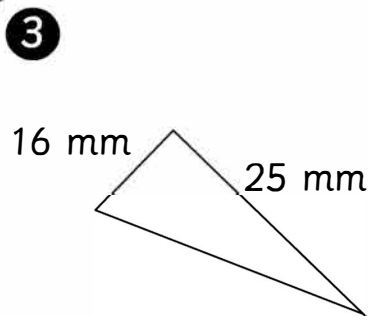
Write the area of the right-angled triangle in the boxes below. You may need a calculator. One has been done for you.



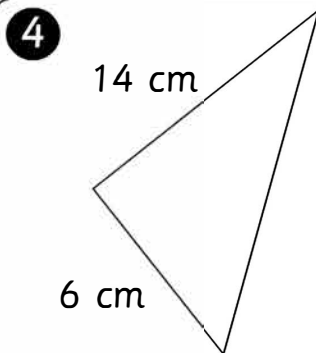
area =
25 cm²



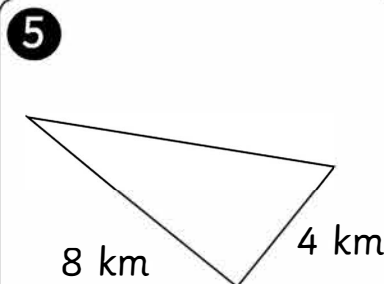
area =



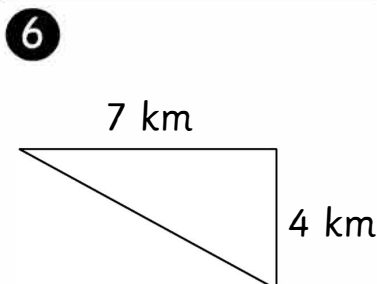
area =



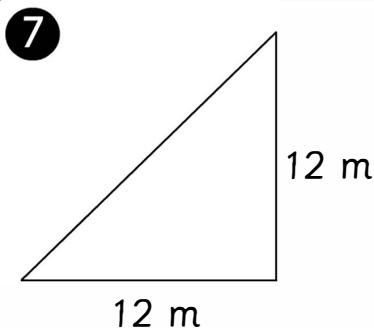
area =



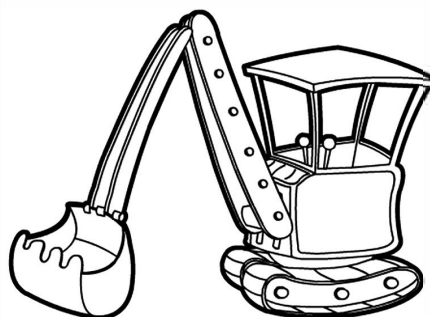
area =



area =



area =



Now draw your own right-angled triangle on the back of the sheet. Label the lengths of the base and height. Then ask a friend to calculate the area.



Pigeon Race



EducationCity.com

Stig, Sten, Manu and Klara decided to race their pigeons to see which was the best. They decided that each pigeon should race three times over different distances.

Race 1. Distance = 80 miles.

- 1 Stig's pigeon flew 25% of the distance. It flew _____ miles.
- 2 Manu's pigeon flew 50% of the distance. It flew _____ miles.
- 3 Sten's pigeon flew 10% of the distance. It flew _____ miles.
- 4 Klara's pigeon flew 75% of the distance. It flew _____ miles.



Race 2. Distance = 100 miles.

- 5 Stig's pigeon flew 50% of the distance. It flew _____ miles.
- 6 Manu's pigeon flew 10% of the distance. It flew _____ miles.
- 7 Sten's pigeon flew 1% of the distance. It flew _____ miles.
- 8 Klara's pigeon flew 25% of the distance. It flew _____ miles.



Race 3. Distance = 90 miles.

- 9 Stig's pigeon flew 5% of the distance. It flew _____ miles.
- 10 Manu's pigeon flew 25% of the distance. It flew _____ miles.
- 11 Sten's pigeon flew 50% of the distance. It flew _____ miles.
- 12 Klara's pigeon flew 10% of the distance. It flew _____ miles.



How far did each pigeon fly?

Write the totals in the spaces below, starting with the one that flew the farthest.

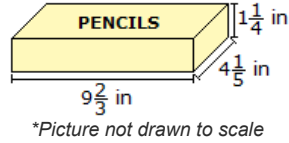
- a _____ pigeon came 1st. It flew _____ miles altogether.
- b _____ pigeon came 2nd. It flew _____ miles altogether.
- c _____ pigeon came 3rd. It flew _____ miles altogether.
- d _____ pigeon came 4th. It flew _____ miles altogether.



Study Island 6th Grade Geometry - Volume

Question 1 .

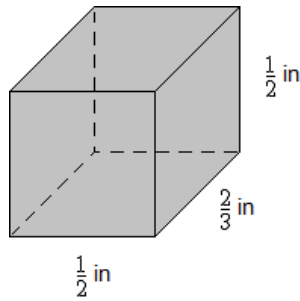
Candice bought a pencil box, shown below, to take with her to school.



What is the volume of the pencil box?

- ☐ A. $40\frac{3}{5}$ cu in
- ☐ B. $101\frac{1}{2}$ cu in
- ☐ C. $50\frac{3}{4}$ cu in
- ☐ D. $15\frac{7}{60}$ cu in

Question 2 .

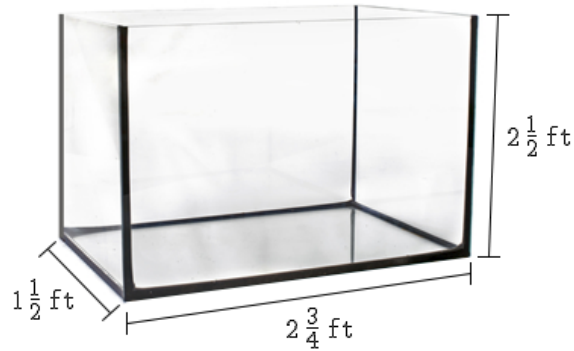


What is the volume of the rectangular prism?

- ☐ A. $\frac{2}{3}$ cu in
- ☐ B. $\frac{1}{2}$ cu in
- ☐ C. $\frac{1}{6}$ cu in
- ☐ D. $\frac{1}{3}$ cu in

Question 3 .

Betty purchased a fish tank. The length, width, and height of the fish tank are shown below.



Picture not drawn to scale

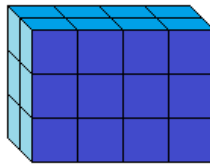
What is the volume of the fish tank?

- ☐ A. $10\frac{5}{32}$ cu ft
- ☐ B. $6\frac{3}{4}$ cu ft
- ☐ C. $10\frac{5}{16}$ cu ft
- ☐ D. $11\frac{5}{16}$ cu ft

Question 4 .

Directions: Select all the correct answers.

The prism below is made of cubes which measure $\frac{1}{6}$ of a centimeter on one side.

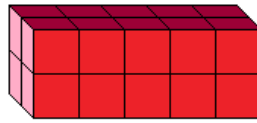


Which of the following represents the volume of the prism?

- ☐ $\frac{1}{216}$ cubic cm $\times 24$
- ☐ $\left(4 \times \frac{1}{6} \text{ cm}\right) + \left(2 \times \frac{1}{6} \text{ cm}\right) + \left(3 \times \frac{1}{6} \text{ cm}\right)$
- ☐ $\left(4 \times \frac{1}{6} \text{ cm}\right) \times \left(2 \times \frac{1}{6} \text{ cm}\right) \times \left(3 \times \frac{1}{6} \text{ cm}\right)$
- ☐ $\frac{4}{3}$ cubic cm
- ☐ $\frac{3}{2}$ cubic cm
- ☐ $\frac{1}{9}$ cubic cm
- ☐ $\frac{1}{18}$ cubic cm $\times 24$

Question 5 .

The prism below is made of cubes which measure $\frac{1}{4}$ of a centimeter on one side. What is the volume?

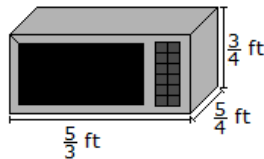


Note: Figure is not drawn to scale.

- ☐ A. 5 cubic cm
- ☐ B. $\frac{9}{4}$ cubic cm
- ☐ C. $\frac{5}{16}$ cubic cm
- ☐ D. 20 cubic cm

Question 6 .

Hannah measured the length, width, and height of her microwave in order to determine if it would fit in the space above her stove. Her measurements are shown below.



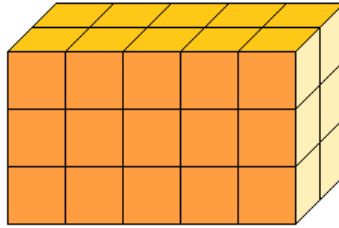
**Picture not drawn to scale*

What is the volume of the microwave?

- ☐ A. $1\frac{3}{4}$ cu ft
- ☐ B. $2\frac{11}{12}$ cu ft
- ☐ C. $3\frac{2}{3}$ cu ft
- ☐ D. $1\frac{9}{16}$ cu ft

Question 7 .

The prism below is made of cubes which measure $\frac{1}{5}$ of an inch on one side. What is the volume of the prism?

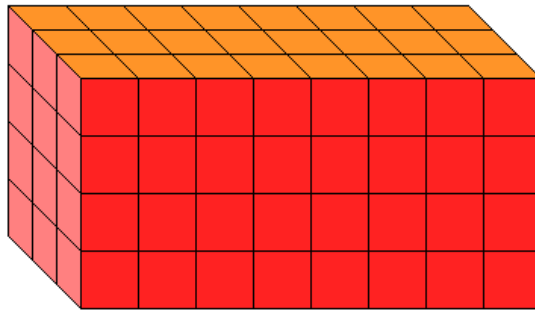


Note: Figure is not drawn to scale.

- ☐ A. 3 cu in
- ☐ B. $\frac{12}{25}$ cu in
- ☐ C. $\frac{25}{6}$ cu in
- ☐ D. $\frac{6}{25}$ cu in

Question 8 .

The prism below is made of cubes which measure $\frac{1}{2}$ of a foot on one side. What is the volume of the prism?

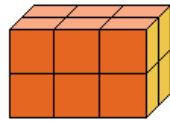


Note: Figure is not drawn to scale.

- ☐ A. 16 cu ft
- ☐ B. 48 cu ft
- ☐ C. 18 cu ft
- ☐ D. 12 cu ft

Question 9 .

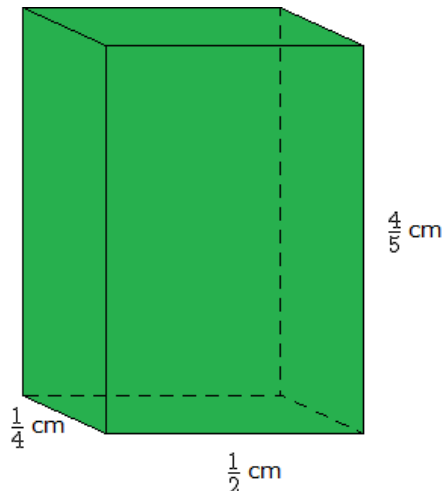
The prism below is made of cubes which measure $\frac{1}{4}$ of an inch on one side. What is the volume?



Note: Figure is not drawn to scale.

- ☐ A. $\frac{7}{4}$ cubic in
- ☐ B. 3 cubic in
- ☐ C. $\frac{3}{16}$ cubic in
- ☐ D. 12 cubic in

Question 10 .



Note: Figure is not drawn to scale.

What is the volume of the rectangular prism?

- ☐ A. $\frac{1}{5}$ cu cm
- ☐ B. $\frac{2}{5}$ cu cm
- ☐ C. $\frac{1}{8}$ cu cm
- ☐ D. $\frac{1}{10}$ cu cm



Reading and Literacy

Pronouns

Circle the letter of the correct pronoun to complete each sentence.

1. ____ aunt opened a new diner.
A. Mine B. My C. I D. Me
2. The Smiths decided to build a tennis court in ____ backyard.
A. we B. mine C. hers D. their
3. My cupcakes were tastier than ____.
A. his B. she C. mine D. it
4. You should talk to ____ before making a decision.
A. they B. We C. them D. he
5. I saw a friend of ____ at the mall yesterday.
A. us B. yours C. her D. you
6. If you were ____, what would you do?
A. us B. his C. her D. me
7. ____ computer is that?
A. Mine B. Yours C. Whose D. Theirs
8. I could not stand ____ complaints a moment longer.
A. ours B. her C. yours D. mine
9. He is smarter than ____.
A. she B. who C. his D. it
10. ____ are a fantastic friend!
A. We B. He C. You D. She

Study Island 6th Grade Language Arts - Punctuation

Question 1 .

Which of the following sentences is punctuated correctly?

- ☐ A. The weary, traveler sought refuge from the storm underneath (a canopy of trees, leafy and green).
- ☐ B. The weary traveler sought refuge from the storm, underneath a canopy of trees, leafy and green.
- ☐ C. The weary traveler sought refuge from the storm underneath a canopy of trees, leafy and green.
- ☐ D. The weary traveler sought refuge from—the storm underneath a canopy of trees, leafy and green.

Question 2 .

Which of the following sentences is punctuated correctly?

- ☐ A. The deepest, place in the ocean is about 7, miles down the Mariana trench in the Pacific Ocean
- ☐ B. The deepest place in the ocean is about 7 miles down the Mariana trench in the Pacific Ocean.
- ☐ C. The deepest, place in the ocean, is about 7, miles down the Mariana trench in the Pacific Ocean
- ☐ D. The deepest place in the ocean, is about 7, miles down the Mariana trench, in the Pacific Ocean.

Question 3 .

Which of the following sentences is punctuated correctly?

- ☐ A. Peter—an accomplished chef enjoyed making different kinds of food.
- ☐ B. Peter, an accomplished chef, enjoyed making different kinds of food.
- ☐ C. Peter an accomplished chef enjoyed making different kinds of food.
- ☐ D. Peter an accomplished chef enjoyed (making different, kinds of food).

Question 4 .

Which of the following sentences is punctuated correctly?

- ☐ A. Frozen to Mai's sore, tongue was a Popsicle heavily, frosted with ice crystals.
- ☐ B. Frozen to Mai's sore tongue—was a Popsicle, heavily frosted with ice crystals.
- ☐ C. Frozen to Mai's sore tongue (was a Popsicle) heavily frosted with ice crystals.
- ☐ D. Frozen to Mai's sore tongue was a Popsicle, heavily frosted with ice crystals.

Question 5 .

Which of the following sentences is punctuated correctly?

- ☐ A. Clara chased the red trolley, which was racing away from her, down the bustling street.
- ☐ B. Clara chased (the red trolley) which was racing away from her down the bustling, street.
- ☐ C. Clara chased the red, trolley which was racing away from her—down the bustling street.
- ☐ D. Clara chased—the red trolley, which was racing away from her down the bustling street.

Question 6 .

Which of the following sentences is punctuated correctly?

- ☐ A. Yvette could not believe—that she forgot to buy flour—an item on her shopping list.
- ☐ B. Yvette could not believe, that she forgot to buy flour an item on her shopping list.
- ☐ C. Yvette could not believe that she forgot to buy flour—an item on her shopping list.
- ☐ D. Yvette could not believe (that she forgot to buy flour) an item on her shopping list.

Question 7 .

Which of the following sentences is punctuated correctly?

- ☐ A. The ocean floor contains mountains, canyons, and plains even larger than those on land.
- ☐ B. The ocean, floor contains mountains, canyons, and plains even larger than those on land
- ☐ C. The ocean, floor contains mountains canyons and plains even larger than those on land.
- ☐ D. The ocean, floor contains mountains canyons and plains even larger than those on land

Question 8 .

Which of the following sentences is punctuated correctly?

- ☐ A. (From her bedroom,) Hayden could see the entire city including the mayor's house, and the park.
- ☐ B. From her bedroom, Hayden could see the entire city (including the mayor's house and the park).
- ☐ C. From her bedroom,—Hayden could see the entire city—including the mayor's house and the park.
- ☐ D. From her bedroom, Hayden could see the entire city, (including) the mayor's house, and the park.

Question 9 .

Which of the following sentences is punctuated correctly?

- ☐ **A.** President Nixon told the astronauts, "For all of us Americans, this has to be the proudest day of our lives."
- ☐ **B.** President Nixon told the astronauts For all of us Americans this has to be the proudest day of our lives.
- ☐ **C.** President Nixon told the astronauts, "For all of us Americans this has to be the proudest day of our lives"
- ☐ **D.** President Nixon told the astronauts "For all of us Americans, this has to be the proudest day of our lives"

Question 10 .

Directions: Select the correct answer from each drop-down menu.

Choose the word that correctly completes the sentence.

The YWCA

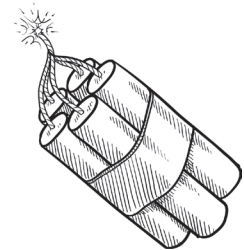
The Young Women's Christian Association is the oldest and largest women's organization in the United States. The YWCA focuses on helping women be strong and the YWCA also promotes racial equality. The organization started in 1858, and today, more than two million people participate in YWCA programs.

Helping Hands

Name _____ Date _____

1 Add the suffix “-ion” to these words to form nouns.

evacuate _____	explode _____
decorate _____	desperate _____
instruct _____	organize _____



2 Write the base word of each of the following words.

university	musician	critical	piracy	ignorant
_____	_____	_____	_____	_____

3 Add an ending to each word in the box to complete the sentences correctly.

assist
danger
person
rely
nerve

He called for an _____ to help him into his costume.
The trek up the mountain was long, steep and _____.
A diary is private and _____.
Bryden is a _____ member of our team.
I always feel _____ when I go to the dentist.



4 Find and fix the spelling mistake in each sentence.

- The cost of electcrisity continues to rise. _____
- Many people around the world have insufishent food to eat. _____
- The door was parshelly open. _____
- The cave we entered was dark and mystrouous. _____
- They predict a cloudy day with ockasionle showers. _____



Spelling Challenge

Unscramble the letters to spell five WIND INSTRUMENTS.

uftle

ephxansoo

oobe

rintalce

mbtorneo

Helping Hands

Name _____ Date _____

- 1 Add a prefix to complete the antonym of each word. Choose from “un-”, “in-” or “dis-”.**

_____ desirable _____ dependent
_____ similar _____ sufficient
_____ familiar _____ comfortable



- 2 Add the correct endings.**

- The prime **minist** _____ is in America on **offic** _____ business.
- She is accompanied by a **person** _____ **assist** _____ and a bodyguard.
- His job as an **electric** _____ can sometimes be **danger** _____.
- The soldiers remained **vigil** _____ after the first loud **explos** _____.
- The **technic** _____ carries a **port** _____ battery pack.



- 3 Change these adjectives to adverbs by adding “-ly”.**

commercial	_____	persistent	_____
sufficient	_____	musical	_____
desperate	_____	similar	_____
regular	_____	regional	_____

- 4 Add a suffix to each word in the box to complete the sentences correctly. Choose from “-ent” or “-ant”.**

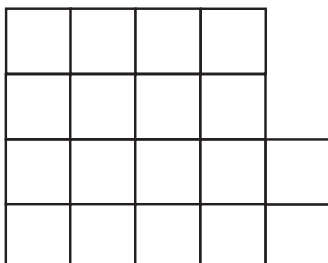
persist
depend
confide
correspond
ignore

If you are _____, you will reach your goal.
Mr. Corby has a wife and three _____ s.
Our coach is _____ that our team will win the game.
Anne Barker works as a foreign _____ for ABC TV.
They remained _____ of the events unfolding on the peninsula.



Spelling Challenge

Use the letters in this word to make new words.



t r o m b o n e s
_ _ _ _ _

Score five points for each correct word.

My score:

UNIT 12: TREES FOREVER?

Forests cover almost one-third of the Earth's land.

The boreal forests in Siberia make up the largest forest region. They cover almost four million square kilometres.

The Amazon rainforest is shrinking every day. People cut and burn down trees for wood products and to clear the land for farms. Most of the temperate forests that once covered Europe and North America have already been cleared.

GO FACT!

DID YOU KNOW?

Trees produce the oxygen we need to breathe.



Winter lasts at least six months in the Siberian forests.



Sustainable Forests?

Forests play an important role in the health of the planet, but we continue to cut them down. Is it possible to use forests without destroying them?

What do forests mean to people?

Forests mean different things to different people. To the native Indians of Brazil, the forest is their home. A logging company sees a forest as a source of timber. For a logging worker, it is a place to work and earn a living. To someone living in a city, a forest might be a place to find peace and relaxation. For governments of developing nations, forests provide products to export, and people with land for farming.



For and against

Logging companies argue that forests are a renewable resource to use in a sustainable way — new trees can be planted to replace the ones removed. The logging industry employs many people, and logging produces

things that people want, such as timber, paper, tissue, cardboard and furniture.

Conservationists say that forests, especially tropical rainforests, are vital to the health of the planet. They want logging in "old growth forests" — the mature forests that have not been disturbed by people — to stop because forest ecosystems are damaged by logging. They argue that trees should only be logged from plantation forests, which are "tree farms" grown especially to be cut down for wood products. Conservationists believe that people working in the old-growth logging industry could find jobs in the plantation timber and tourism industries.

c u @ rally nr red
tent. pls bring lots
posters. dont b l8

Wood

Wood is a natural material from living trees. It is made of plant cells.

Plant cells contain **cellulose**, a type of sugar. It links together to make wood fibres.

Wood burns easily. Its main use for thousands of years was as a fuel for cooking and heating. Wood is also used as a building material because it is strong and light compared to other building materials. Australia removes about 25 million cubic metres of wood from its forests each year.

Wood can be made into synthetic materials. Particle board is made from pieces of wood mixed with wax and glue. Particle board is cheaper and denser than natural wood. It is used to line ceilings and walls and to make furniture.



PRO-LOGGING RALLY

Speakers •
Music • Food

Saturday 24
September
Green Park,
Turnpike Road

NOT IN OUR BACKYARD! ANTI-LOGGING RALLY

SPEAKERS • MUSIC • FOOD
SUNDAY 25 SEPTEMBER
GREEN PARK, TURNPIKE ROAD





In the texts


1 a What is the main topic of the texts on pages 120 and 121?

Underline the most accurate answer.

wooden objects different types of trees importance of forests

threats to forests uses of wood rallies

b Use dot points to list the issues that could be discussed on this topic, eg *Can timber workers find jobs if logging is halted?*

2 a Underline the sentence that introduces the topic in *Sustainable Forests*?  Done

b What does the question mark mean in the title of this text?

3 a Who do you think wrote the SMS message on page 120?

b What are the advantages of using mobile phones to send messages?

4 Look at the posters on page 121.

a Circle the features of a good poster.

modern design humour pictures symmetry

correct information long words a slogan large size

correct spelling phone number the designer's name

b What important event information is missing from the posters?

c If you were organising one of the rallies, where would you place posters to promote it?



Read and learn



I Write definitions for these words.

- a rally:
- b renewable:
- c cells:
- d natural:

2 a Read the text at the top of page 120 and complete these sentences.

Forests cover _____ than one-third of the Earth's land. The Amazon rainforest is getting _____. The boreal forests are _____ than any other forest region.

- b What is the main challenge to the Amazon rainforest?

3 True or false?

- a The posters on page 121 promote forest logging.
- b The same people would go to both rallies.
- c The rallies are at the same location.
- d The rallies would sound the same.

4 On page 121, write a pro-logging slogan in the blank space on the poster. Done

5 a Underline the words in *Sustainable Forests?* that explain what sustainable logging is.



- b What is an old-growth forest?

6 Complete the table.

People	Role of forests in their lives
a logging worker	
b native Brazilian Indians	
c	a source of timber



7 What do conservationists believe should happen to old growth forests? Why?

8 Read *Wood* on page 121.

a List the main advantages of wood as a product.

b What three materials are in particle board?

c List everything made of wood in the photo of the dining room on page 121.

d What would your life be like without wood products?

9 What does *pro-logging* mean?

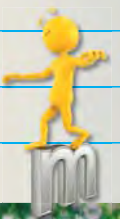
10 What does the slogan “not in our backyard” mean?

11 The SMS message on page 120 doesn’t use complete words.

Write out the message in complete words and sentences with correct punctuation.

12 What is a boreal forest?

13 How would a “tree farm” be similar to other types of farms?



Your turn

I Many discussions end with a conclusion.

Write a conclusion for *Sustainable Forests*?

It may — but doesn't have to — support one side of the discussion.

2 a Brainstorm the arguments for and against logging old growth forests with classmates. ★ Done

b Write a discussion about the topic.

Can Old Growth Forests Survive?

A discussion looks at more than one point of view. It may end with the writer's point of view or summarise both points of view. It has:

- an introduction that describes the issue
- paragraphs with arguments for and against (each argument should have supporting evidence)
- words that show importance and value
- a conclusion that may or may not support one side.

Introduce the topic.

Arrange your points for both sides of the discussion and write them in sentences. Use modal language, such as *we must not* or *nobody cares enough*. Add supporting statements to your points.

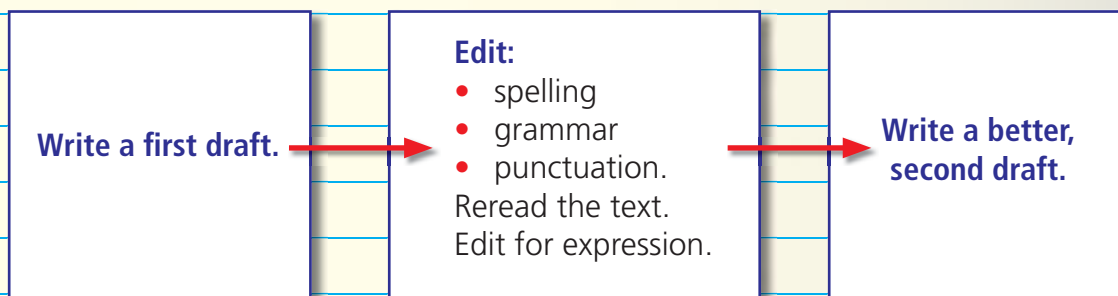
Use connectives, such as *On the other hand* or *However*, to begin sentences.

End with a conclusion about the topic.



Editing and proofreading

The first draft of your writing is rarely your best writing.



I Edit and rewrite these texts.

- a** The wild-life in forests is intresting and yuneek so we must preserve it
- b** What is the answer we just cant decide
- c** It is a big problem. It is not going to be solved. It needs us to think good ideas.
- d** With such diversity such bewtiful animals and plants such rare insects and so many dangered animals the rain-forests are a national treasure?
- e** James beleived that the forests should be loged because jobs would be lost if barkenbush company were forced to leaving. On the other hand oliver believed that people could find other jobs and which the people were less important than the future for all of us.

2 Rewrite this poster so that it is clear, well set out and interesting.

26 october
0442 789 012

All meet at the lake
We are going to plan a protest

Don't come if you are too young

Look for some people in the
shelter by the lake

Ban the wood chippers
Music needed and food too,
I guess

3 Edit this text for spelling and punctuation, and rewrite it on a separate sheet of paper. ☆ Done

Would is a valuble resouce that we use evryday if their was no tree's
bing tayken we wood have had to find other ways to make ferniture
flours walls and objecks in people's homes. Their would bee diffrent
goods in stores all over nsw. Wow it woud be v. strange. What do u
think we would use for bilding.

4 Edit this text for grammar and expression, and rewrite it on a separate sheet of paper. ☆ Done

The logging rally was held in the bush near our grandpa's farm. It is
going to be a big rally and police came to control the big crowd. It could
be heard even two kilometres away near grandpa's farm. It was late
afternoon before they got quite. When we went down to the bush the
next day they took all their rubbish away. Gandpa and Grandma was
real happy about that.

Editing tips

Circle spellings that you are unsure about. Check them later in a dictionary.

Does the tense remain the same?

Do verbs and nouns agree in number (singular or plural)?

Are the sentences complete?

Are interesting words used?

Are different sentence beginnings used?

Ask friends and family for new ideas. Ask three people before you ask your teacher.

My stuff

Interesting things I've read, seen or done lately.



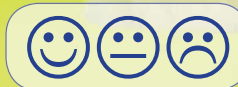
Cut and stick pictures from magazines or newspapers.

cool games

Books read

GREAT WEBSITES

UNIT 11: REV IT UP



1 2 3 4 5 6 7 8 9 10

Best part

Hardest part

Most interesting



Diary

DRAWINGS
plays
poetry

UNIT 12: TREES FOREVER?

Best part



Hardest part

Most interesting

1 2 3 4 5 6 7 8 9 10

Unit 3: Are aliens real?



H.G. WELLS'

THE

OF

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

W

Bob: It's ten past the hour, I'm Bob Baffle and you're listening to Tuesday Night Talk. I've got Gretel on the line. Gretel?

Gretel: Hi Bob, I had to call, I've just seen these lights in the sky ...

Bob: Yes, they're called stars, Gretel. You're not going to tell me you think they're UFOs are you? Do you believe in that crazy aliens and UFO stuff?

Gretel: But they're still ...

Bob: Gretel, Gretel, Gretel, those wacky alien stories are always proven false. They're from crackpots — no offence, Gretel — who just want attention. There's no science behind it. Astronauts have never seen aliens. There is no evidence, only rumours and fairytales.

Gretel: But Bob, the lights are still there, they're low, they're circling my ...

Bob: People see aliens because they want to see aliens. Gretel, never believe something unless it can be proven!

Gretel: Bob! Bob! They've landed in my backyard, right next to the clothesline! Gotta go!

Bob: Gretel? Gretel? Well, there goes another loopy one. Must be a full moon tonight. Our next caller ...





The War of the Worlds

by H. G. Wells

BOOK ONE **THE COMING OF THE MARTIANS**

CHAPTER ONE **THE EVE OF THE WAR**

No one would have believed in the last years of the nineteenth century that this world was being watched keenly and closely by intelligences greater than man's and yet as mortal as his own; that as men busied themselves about their various concerns they were scrutinised and studied, perhaps almost as narrowly as a man with a microscope might scrutinise the transient creatures that swarm and multiply in a drop of water. With infinite complacency men went to and fro over this globe about their little affairs, serene in their assurance of their empire over matter. ... Yet across the gulf of space, minds that are to our minds as ours are to those of the beasts that perish, intellects vast and cool and unsympathetic, regarded this earth with envious eyes, and slowly and surely drew their plans against us.

Is It a Bird? Is It a Plane?

When a new alien movie hits the big screen, reports of alien activity often increase. A new book on aliens can have the same effect. Many of these reported sightings happen at night, or when the person is driving along a deserted road.

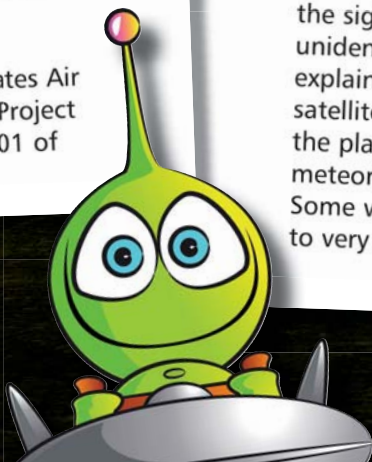
During World War II, many British and American pilots said they saw bright shining balls near their aircraft. They called them 'foo fighters', after a comic that was popular then.

Between 1947 and 1969, the United States Air Force studied 12 618 UFO sightings in 'Project Blue Book'. They discovered that only 701 of



the sightings were really unidentified. The rest were explained as aircraft and satellites, weather balloons, the planets Venus or Jupiter, meteors, or unusual clouds. Some were also put down to very good imaginations!

This photo of a Japanese fighter plane, taken in 1945, is said to show two 'foo fighters' in the distance.





In the texts

1 What do the texts on pages 24–25 have in common? Circle one.

introduction

author

topic

conclusion

2 Match each text to its type.

Bob and Gretel's dialogue

poster

H.G. Wells' *The War of the Worlds*

radio transcript

Is It a Bird? Is It a Plane?

article

The War of the Worlds, Chapter 1

narrative

3 Describe each text and explain what information it gives about the topic.

a Radio transcript

b Poster (not the movie)

c *Is It a Bird? Is It a Plane?*

d *The War of the Worlds, Chapter 1*

4 a Rate each text on a scale of 1 to 5 for believable information, where 1 is *most believable* and 5 is *least believable*.

radio transcript ☐

poster ☐

Is It a Bird? Is It a Plane? ☐

The War of the Worlds, Chapter 1 ☐

b Why is the text with the highest rating the most believable?



c Rate each text on a scale of 1 to 5 for interest and entertainment.

radio transcript

poster

Is It a Bird? Is It a Plane?

The War of the Worlds, Chapter 1

d Why is the text with the highest rating the most interesting and entertaining?

5 With a partner, read the radio transcript, taking turns to read each of the parts.

First, read without using the text's punctuation to guide the way you read.

☆ Done

Second, read with the pauses and inflections as shown by the punctuation.

☆ Done

6 Highlight an ellipsis (...) in the transcript. In this text, they show interrupted speech.

Why was Bob Baffle always interrupting Gretel?

7 Bob Baffle has an opinion about aliens and UFOs. How does his language show this?

Give examples.

8 Study the first sentence in *The War of the Worlds, Chapter 1*.

a Rewrite it as several sentences.

b Does this improve the original text? Explain your answer.





Read and learn

1 Write definitions for these words.

a keenly:

b intelligences:

c mortal:

d scrutinised:

2 Read *The War of the Worlds, Chapter 1* and answer true (T) or false (F).

☐ Mankind was not worried about intruders from space.

☐ Our minds are just like those from outer space.

☐ Aliens like us and care for us.

☐ Aliens want what we have.

☐ Aliens are very smart.

3 What causes an increase in reports of aliens?

4 What are foo fighters?

5 How many UFO sightings were found to be real objects between 1947 and 1969?

6 What makes the poster frightening?

7 Who was H.G. Wells?

8 What is technicolor?



Your turn

- I An exposition argues for or against something. It tries to persuade the reader.** Write an exposition about aliens — decide to argue for or against the existence of aliens. Use the texts on pages 24–25 for background information.

Write a strong title.

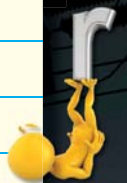
Introduce the topic and state your point of view.

Make at least three supporting points and back each one up with evidence.

Summarise your point of view.

An exposition argues for or against something. It has:

- the author's point of view
- arguments with supporting evidence
- persuasive words
- a conclusion
- a recommendation for further action.



Persuasive writing

- 1** Evaluative language uses words which place a value on the topic, eg *His argument was useless. It was completely false!* Write three sentences using evaluative language to persuade your reader that it is unwise to believe that aliens can visit Earth.

- 2** Emotive language uses words which play on people's emotions, eg *The Aliens approached the defenceless, terrified people in the deserted farmhouse.*

Write three sentences using emotive language to convince your reader to donate to a charity that protects stray animals.

- 3** Rhetorical questions ask the reader about something, but they don't expect an answer, eg *What would any sane person think?* The answer is usually obvious.

Rhetorical questions focus attention on a topic. Draw lines to connect the halves of each rhetorical question.

- | | |
|------------------------------|-----------------------|
| a What do you | must I say this? |
| b Why would | take me for? |
| c Would you like that | who's counting? |
| d How many times | to happen to you? |
| e But | of yours? |
| f What business is it | someone believe that? |

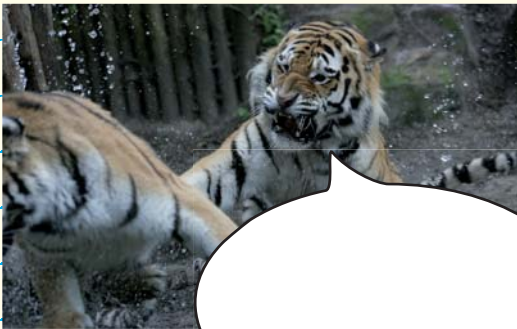


- 4** **Modality shows how strongly the writer feels about a topic.** High modality language uses words that show strong feeling and meaning, eg *We must study this before more people are scared. Surely this can't go on!* A writer uses high modality, low modality or a position in between. Use words from the word bank to convince someone to see your favourite film.

Modal verbs	must	might	should	could	will	may
Modal adverbs	surely	rarely	only	definitely	clearly	

- 5** **Commanding language is very persuasive, eg *You have to be more aware!***

Give each character some commanding language.



- 6** **Involving language gets the reader to believe he or she is part of a problem or solution, eg *We can all help. We can share the job.*** Write three sentences which will get your friends to join you in watching out for aliens.

Unit 8: It's only water ...



Water and Your Home

Many people in the world enjoy access to lots of clean, fresh water. How does it get to their homes?

Fresh water is pumped from a lake or dam to a water filtration plant, where it is filtered to remove weeds, fish and minerals. It is then pumped into storage tanks.

From the storage tanks it moves into underground water **mains**, which carry water to taps in our houses. When we open the tap, the pressure in the pipes pushes the water out. Water pipes can also be connected directly to wells or **boreholes** to provide water to houses that are not connected to the water mains.

We cannot drink less water, but we can find ways to use less of it for other things. Some ideas are:

- Repair dripping taps.
- Take a quick shower instead of a bath.
- Wash dishes in a sink, not under a running tap.
- Wash the car with a bucket of water instead of a hose.
- Water the garden at cool times of the day.

Can you think of other ways to conserve water?

Using less

In industrialised countries, each person uses up to 1 000 litres of water every day to drink, cook, wash, flush toilets and water gardens. However, in countries where water is not piped into houses, people use as little as five litres per day.



16

How money turns into water



You make a donation. Thanks!

Many non-government organisations (NGOs) do development work in other countries.

The money is added to the NGO's general funds.

The NGO also needs money for administration, such as paying staff and renting an office.



The NGO decides which projects to support.

The NGO forms a committee to decide which projects to support. The NGO works with partner organisations in other countries to design projects, such as building toilets or funding a community nurse.



Water for Everyone?

All humans need water to survive. In modern, industrialised countries, clean water is easy to find — we simply turn on a tap. In some countries, water is a luxury. More than one billion people in the world do not have access to clean, safe water.



Not enough water

In the **Developing World**, many people cannot get enough water for drinking and cooking. If they can find water, they may have to carry it long distances from rivers and wells. Women and children spend a large part of every day fetching water. This prevents them from doing important work and going to school.

If there is a drought, there is no water to collect.

Dirty water kills

Where there is no running water, people don't have flushing toilets and sewerage systems.

Human and animal waste ends up in rivers and can cause diseases. Every day about 6 000 people in the Developing World, mostly children under the age of five, get sick and die from drinking polluted water.

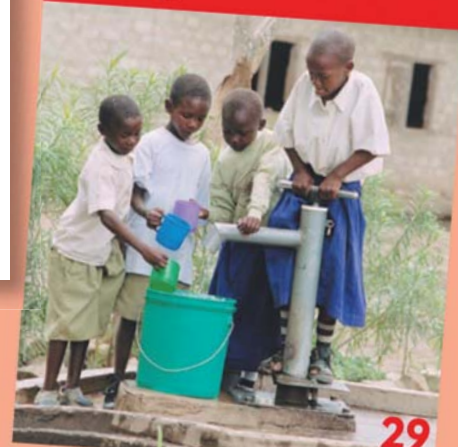
The United Nation's Millennium Development Goals call for the number of people who don't have sustainable access to safe drinking water and basic **sanitation** to be halved by the year 2015. This big goal can be achieved if governments make water and sanitation a funding priority for the world's poorest people.

28

A capped spring provides constant fresh water.



A protected well and pump supplies clean water to students of Shambarai Primary School in Tanzania.



29

Images provided courtesy of World Vision Australia © 2005

This traditional, hand-dug well in Mali isn't deep enough to reach a steady supply of water.



Money is sent to the partner organisation.

Local villagers and the partner organisation buy materials and start work.

A village gets clean water!

Clean water means better health and less disease.



The project is reviewed.

The partner organisation and the NGO check that the money was spent as planned, and that the project is a success.

The NGO may receive extra funds.

AusAID, the Australian Government agency for international development, may give extra money.



In the texts

- 1** *Water and Your Home* and *Water for Everyone?* contain explanations, which tell how or why things happen.

a Circle the explanations in each text. ☆ Done

b Complete these sentences in your own words.

The explanation in *Water and Your Home* tells us how

The explanation in *Water for Everyone?* tells us how

- 2** Why does the author use dot points in *Water and Your Home*?

- 3** An acronym is a word formed from the first letter or letters of a group of words.

Find out the meanings of these acronyms.

a AusAID:

b WHO:

c RAAF:

d UNMDG (Hint: see page 77):

e Which acronym above is not pronounced as a word?

- 4** *How money turns into water* is an explanation shown as a flow chart.

a Write a new title for the explanation that also begins with *How*.

b What do the arrows mean?

c What difference does it make to have photos with the text?

- 5 a** What is the purpose of a caption?

b Write your own caption for the photo of students pumping water on page 77.



Read and learn

1 The bold words in *Water and Your Home* and *Water for Everyone?* belong in a glossary.

Write your own definitions for the words.

a mains:

b boreholes:

c Developing World:

d sanitation:

2 List other words from pages 76 and 77 that you think should be included in a glossary.

3 *Spring* is a homonym. Write four meanings for it.

1

2

3

4

4 Read *Water and Your Home*.

a Write numbers to complete these sentences.

Every year, a person in an industrialised country uses about _____ litres of water. That's enough to fill about eight swimming pools! During the same period, about _____ people in the Developing World die from drinking polluted water.

b Why do you think people wash cars using garden hoses?

c Why would watering the garden at cool times of the day save water?

5 In *Water for Everyone?*, what do you think *water is a luxury* means?

6 Circle the three most important reasons to have clean water.

beautiful views

staying cool

cooking

health

water sports

growing food

making ice

swimming lessons

fish farming

7 Write captions for these photos about how drinking water can become polluted.



8 Write three sentences which explain why polluted water is bad for human health.

9 Why do you think the last step in the flow chart is included? What would happen if an NGO skipped this step?

10 Choose an NGO that works in Africa. Research and explain what it does.

Your turn

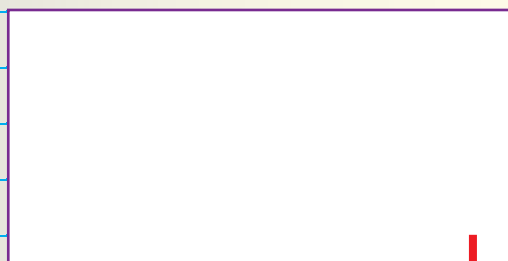
I Use *Water and Your Home* on page 76 to explain how clean, fresh water gets to your home.

- a** Draw a flow chart.
- b** Write an introduction that tells what is being explained.
- c** Write one or two sentences for each step of the explanation.

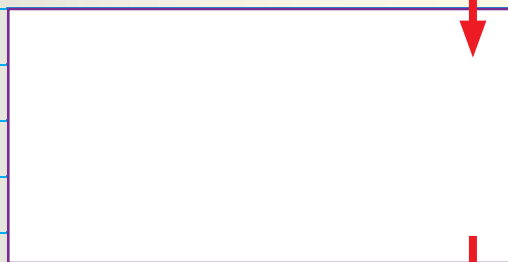
How Water Reaches Our Homes

An explanation tells how and why things happen. It explains actions and processes. It has:


- a title that often includes *How* or *Why*
- a statement introducing the action or process
- sequenced paragraphs in present tense
- conclusion
- labelled diagrams and flow charts.



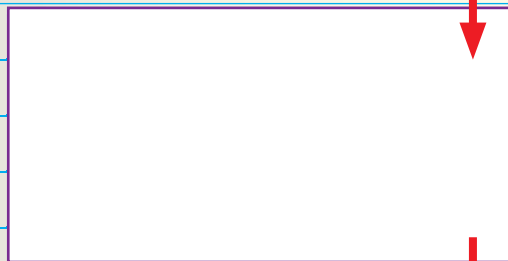
1 dam



2 filtration plant



3 storage tank



4 underground mains



5 tap



Sentences

- 1 Nearly every sentence contains a subject and a verb.** Add verbs to these subjects to build sentences. Add singular verbs to singular nouns, and plural verbs to plural nouns. End each sentence with a full stop, question mark or exclamation mark.

My dog **slept**.

- a** Those trees
- b** The large organisation
- c** His pet goat
- d** Four old men

- 2 Add an adverb to each sentence to add meaning to the verb.**

My dog **slept soundly**.

- a** Those trees
- b** The large organisation
- c** His pet goat
- d** Four old men

- 3 A phrase is a short group of words with a preposition but without a verb, eg *across the lake*.** It can act like an adverb or adjective.

Add words to build phrases in these sentences. Remember: no verbs!

- a** Friends gathered *at the*
- b** They respected the man *from*
- c** *After* _____, they all left to go home.
- d** A reporter interviewed people *at*
- e** A report was published next day *in*

- 4 Add adverbial phrases to these sentences to tell *how, when, where* or *how much*.**

- a** Villagers cheered when their water supply arrived (*say how*)

- b** New pumps were built (*say where*) _____,
so everyone had water.

- c** (*Say how long*) _____, the village had been
without fresh water.

d Fresh water saved the village (say where) _____
from disaster.

e (Say when) _____, the children would
have to carry water home.

5 Write adjectival phrases to add detail to the subjects of these sentences, eg *The boy with a sweet smile was planning to be very naughty.* *With a sweet smile* describes the boy.

a The village children _____ squealed and
clapped their hands.

b Water _____ flowed down their chins.

c Mothers and fathers _____ laughed loudly.

d _____, the sun rose over the village.

6 Sentences must have a consistent tense. For example, a sentence that starts in the past tense must use the past tense all the way through. Underline the mistakes in these sentences.

Last week, the NGO took its teams into Sudan and give help to farmers. To help the NGO, we will donate money from our charity fund and counted it. It isn't as much as we think, so we needed to donate more.

7 Write adjectival clauses to describe the people in the sentences.

Remember: a clause has a verb.

a Jason, _____,
fell head first into the mud.

b We searched everywhere for Harry _____.

c The pup _____ was missed by his owner.

d Down the road rolled the truck _____.

e Quick thinking by the driver _____
stopped the runaway truck.

f The committee, _____,
decided to support the projects immediately.

My stuff

Interesting things I've read, seen or done lately.

18

September

Books read

poetry

COOL GAMES

photos

UNIT 7: WHICH IS BEST?



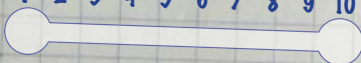
The best part was

The hardest part was

The easiest part was

Most interesting fact

1 2 3 4 5 6 7 8 9 10



Unit 8: It's only water ...



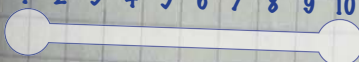
The best part was

The hardest part was

The easiest part was

Most interesting fact

1 2 3 4 5 6 7 8 9 10



19
DRAWINGS

Diary

PLAYS

Cut and stick pictures
from magazines or
newspapers.



great websites

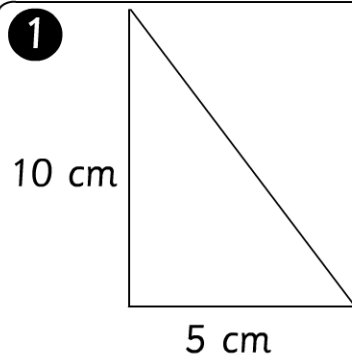


Answer Keys

Write the area of the right-angled triangle in the boxes below. You may need a calculator. One has been done for you.

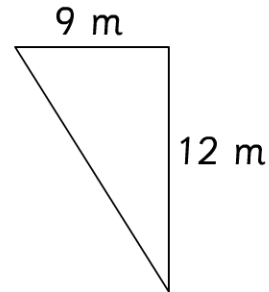


1



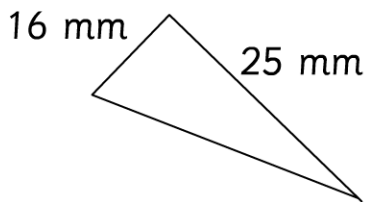
area =
25 cm²

2



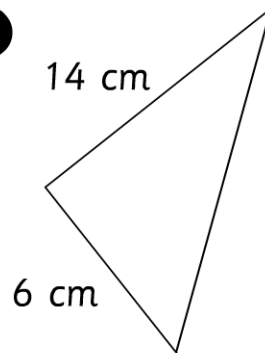
area =
54 m²

3



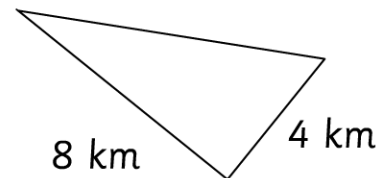
area =
200 mm²

4



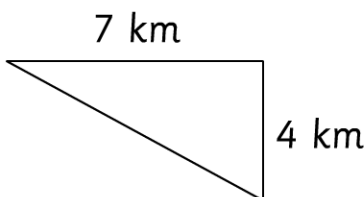
area =
42 cm²

5



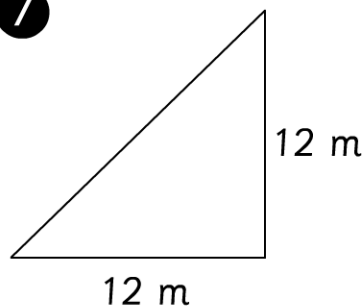
area =
16 km²

6

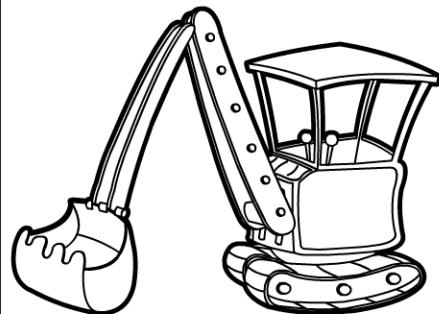


area =
14 km²

7



area =
72 m²



Now draw your own right-angled triangle on the back of the sheet. Label the lengths of the base and height. Then ask a friend to calculate the area.

Stig, Sten, Manu and Klara decided to race their pigeons to see which was the best. They decided that each pigeon should race three times over different distances.

Race 1. Distance = 80 miles.

- 1 Stig's pigeon flew 25% of the distance. It flew 20 miles.
- 2 Manu's pigeon flew 50% of the distance. It flew 40 miles.
- 3 Sten's pigeon flew 10% of the distance. It flew 8 miles.
- 4 Klara's pigeon flew 75% of the distance. It flew 60 miles.



Race 2. Distance = 100 miles.

- 5 Stig's pigeon flew 50% of the distance. It flew 50 miles.
- 6 Manu's pigeon flew 10% of the distance. It flew 10 miles.
- 7 Sten's pigeon flew 1% of the distance. It flew 1 miles.
- 8 Klara's pigeon flew 25% of the distance. It flew 25 miles.



Race 3. Distance = 90 miles.

- 9 Stig's pigeon flew 5% of the distance. It flew 4.5 miles.
- 10 Manu's pigeon flew 25% of the distance. It flew 22.5 miles.
- 11 Sten's pigeon flew 50% of the distance. It flew 45 miles.
- 12 Klara's pigeon flew 10% of the distance. It flew 9 miles.



How far did each pigeon fly?

Write the totals in the spaces below, starting with the one that flew the farthest.

- (a) Klara's pigeon came 1st. It flew 94 miles altogether.
- (b) Stig's pigeon came 2nd. It flew 74.5 miles altogether.
- (c) Manu's pigeon came 3rd. It flew 72.5 miles altogether.
- (d) Sten's pigeon came 4th. It flew 54 miles altogether.



Answers: Geometry - Volume

1. C
2. C
3. C
4. --
5. C
6. D
7. D
8. D
9. C
10. D

Explanations: Geometry - Volume

1. The formula for the volume of a rectangular prism is shown below.

$$V = \text{length} \times \text{width} \times \text{height}$$

To find the volume of the pencil box, substitute the values given in the question into the formula.

$$\begin{aligned} V &= \left(9\frac{2}{3} \text{ in}\right) \times \left(4\frac{1}{5} \text{ in}\right) \times \left(1\frac{1}{4} \text{ in}\right) \\ &= \left(\frac{29}{3} \text{ in}\right) \times \left(\frac{21}{5} \text{ in}\right) \times \left(\frac{5}{4} \text{ in}\right) \\ &= \frac{3,045}{60} \text{ cu in} \\ &= \frac{203}{4} \text{ cu in} \\ &= 50\frac{3}{4} \text{ cu in} \end{aligned}$$

2. The formula for the volume of a rectangular prism is shown below.

$$V = l \cdot w \cdot h$$

To find the volume of the rectangular prism, substitute the values given in the question into the formula.

$$\begin{aligned} V &= \left(\frac{1}{2} \text{ in}\right) \cdot \left(\frac{2}{3} \text{ in}\right) \cdot \left(\frac{1}{2} \text{ in}\right) \\ &= \frac{2}{12} \text{ cu in} \\ &= \frac{1}{6} \text{ cu in} \end{aligned}$$

3. The formula for the volume of a rectangular prism is shown below, where B is the area of the base and h is the height of the prism.

$$V = Bh$$

First, find the area of the base, B , of the fish tank. The fish tank has a length of $2\frac{3}{4}$ feet and a width of $1\frac{1}{2}$ feet. So, the area of its base can be calculated as shown below.

$$\begin{aligned} B &= \text{length} \times \text{width} \\ &= 2\frac{3}{4} \text{ ft} \times 1\frac{1}{2} \text{ ft} \\ &= \frac{11}{4} \text{ ft} \times \frac{3}{2} \text{ ft} \\ &= \frac{33}{8} \text{ sq ft} \end{aligned}$$

Next, find the volume, V , of the fish tank. Substitute $B = \frac{33}{8}$ square feet and $h = 2\frac{1}{2}$ feet into $V = Bh$.

$$\begin{aligned} V &= Bh \\ &= \frac{33}{8} \text{ sq ft} \times 2\frac{1}{2} \text{ ft} \\ &= \frac{33}{8} \text{ sq ft} \times \frac{5}{2} \text{ ft} \\ &= \frac{165}{16} \text{ cu ft} \\ &= 10\frac{5}{16} \text{ cu ft} \end{aligned}$$

So, the volume of the fish tank is $10\frac{5}{16}$ **cu ft**.

4. The volume of the prism can be found in two ways.

One way is to first find the measurements of the length, width, and height.

$$\text{length} = 4 \times \frac{1}{6} \text{ cm}$$

$$\text{width} = 2 \times \frac{1}{6} \text{ cm}$$

$$\text{height} = 3 \times \frac{1}{6} \text{ cm}$$

Now, substitute these measurements into the formula of the volume of a prism.

$$\begin{aligned}\text{Volume} &= \left(4 \times \frac{1}{6} \text{ cm}\right) \times \left(2 \times \frac{1}{6} \text{ cm}\right) \times \left(3 \times \frac{1}{6} \text{ cm}\right) \\ &= \frac{4}{6} \text{ cm} \times \frac{2}{6} \text{ cm} \times \frac{3}{6} \text{ cm} \\ &= \frac{2}{3} \text{ cm} \times \frac{1}{3} \text{ cm} \times \frac{1}{2} \text{ cm} \\ &= \frac{2}{18} \text{ cubic cm} \\ &= \frac{1}{9} \text{ cubic cm}\end{aligned}$$

Another way is to first find the volume of one cube.

$$\frac{1}{6} \text{ cm} \times \frac{1}{6} \text{ cm} \times \frac{1}{6} \text{ cm} = \frac{1}{216} \text{ cubic cm}$$

Now, multiply the volume of one cube by the number of cubes.

$$\begin{aligned}\frac{1}{216} \text{ cubic cm} \times (4 \times 2 \times 3) &= \frac{1}{216} \text{ cubic cm} \times 24 \\ &= \frac{24}{216} \text{ cubic cm} \\ &= \frac{1}{9} \text{ cubic cm}\end{aligned}$$

Therefore, the following each represent the volume of the prism.

$$\begin{aligned}\left(4 \times \frac{1}{6} \text{ cm}\right) \times \left(2 \times \frac{1}{6} \text{ cm}\right) \times \left(3 \times \frac{1}{6} \text{ cm}\right) \\ \frac{1}{216} \text{ cubic cm} \times 24 \\ \frac{1}{9} \text{ cubic cm}\end{aligned}$$

5. The volume of a prism can be determined using the formula below.

$$\text{Volume} = \text{length} \times \text{width} \times \text{height}$$

Since each cube measures $\frac{1}{4}$ of a centimeter on one side, then the dimensions of the prism are shown below.

$$\text{length} = 5 \times \frac{1}{4} \text{ cm}$$

$$\text{width} = 2 \times \frac{1}{4} \text{ cm}$$

$$\text{height} = 2 \times \frac{1}{4} \text{ cm}$$

Substitute these dimensions into the volume formula to determine the volume of the prism.

$$\begin{aligned}\text{Volume} &= \left(5 \times \frac{1}{4} \text{ cm}\right) \times \left(2 \times \frac{1}{4} \text{ cm}\right) \times \left(2 \times \frac{1}{4} \text{ cm}\right) \\ &= \frac{5}{4} \text{ cm} \times \frac{2}{4} \text{ cm} \times \frac{2}{4} \text{ cm} \\ &= \frac{5}{4} \text{ cm} \times \frac{1}{2} \text{ cm} \times \frac{1}{2} \text{ cm} \\ &= \frac{5}{16} \text{ cubic cm}\end{aligned}$$

6. The formula for the volume of a rectangular prism is shown below.

$$V = \text{length} \times \text{width} \times \text{height}$$

To find the volume of the microwave, substitute the values given in the question into the formula.

$$\begin{aligned} V &= \left(\frac{5}{3} \text{ ft}\right) \times \left(\frac{5}{4} \text{ ft}\right) \times \left(\frac{3}{4} \text{ ft}\right) \\ &= \frac{75}{48} \text{ cu ft} \\ &= \frac{25}{16} \text{ cu ft} \\ &= 1 \frac{9}{16} \text{ cu ft} \end{aligned}$$

7. The volume of a rectangular prism can be found using the formula below.

$$\text{Volume} = \text{length} \times \text{width} \times \text{height}$$

The volume of the prism can be found in two ways - either by multiplying the volume of each cube by the number of cubes or by using the volume formula.

To find the volume of the rectangular prism the first way, find the volume of one cube.

$$\frac{1}{5} \text{ in} \times \frac{1}{5} \text{ in} \times \frac{1}{5} \text{ in} = \frac{1}{125} \text{ cu in}$$

Next, count the number of cubes inside the prism. Since there are 3 layers of cubes and each layer has 10 cubes, the total number of cubes inside the prism is calculated as shown below.

$$3 \times 10 = 30$$

Now, multiply the volume of one cube by the number of cubes.

$$\begin{aligned} \frac{1}{125} \text{ cu in} \times 30 &= \frac{30}{125} \text{ cu in} \\ &= \frac{6}{25} \text{ cu in} \end{aligned}$$

The other way to find the volume of a rectangular prism is to find the length, width and height of the prism by multiplying the number of cubes for each measurement by the length of one cube.

$$\text{length} = 5 \times \frac{1}{5} \text{ in}$$

$$\text{width} = 2 \times \frac{1}{5} \text{ in}$$

$$\text{height} = 3 \times \frac{1}{5} \text{ in}$$

Now, substitute these measurements into the formula of the volume of a prism.

$$\begin{aligned} \text{Volume} &= \left(5 \times \frac{1}{5} \text{ in}\right) \times \left(2 \times \frac{1}{5} \text{ in}\right) \times \left(3 \times \frac{1}{5} \text{ in}\right) \\ &= 1 \text{ in} \times \frac{2}{5} \text{ in} \times \frac{3}{5} \text{ in} \\ &= \frac{6}{25} \text{ cu in} \end{aligned}$$

The volume of the prism found by both the methods is the same.

So, the volume of the prism is $\frac{6}{25}$ cu in.

8. The volume of a rectangular prism can be found using the formula below.

$$\text{Volume} = \text{length} \times \text{width} \times \text{height}$$

The volume of the prism can be found in two ways - either by multiplying the volume of each cube by the number of cubes or by using the volume formula.

To find the volume of the rectangular prism the first way, find the volume of one cube.

$$\frac{1}{2} \text{ ft} \times \frac{1}{2} \text{ ft} \times \frac{1}{2} \text{ ft} = \frac{1}{8} \text{ cu ft}$$

Next, count the number of cubes inside the prism. Since there are 4 layers of cubes and each layer has 24 cubes, the total number of cubes inside the prism is calculated as shown below.

$$4 \times 24 = 96$$

Now, multiply the volume of one cube by the number of cubes.

$$\begin{aligned} \frac{1}{8} \text{ cu ft} \times 96 &= \frac{96}{8} \text{ cu ft} \\ &= 12 \text{ cu ft} \end{aligned}$$

The other way to find the volume of a rectangular prism is to find the length, width and height of the prism by multiplying the number of cubes for each measurement by the length of one cube.

$$\text{length} = 8 \times \frac{1}{2} \text{ ft}$$

$$\text{width} = 3 \times \frac{1}{2} \text{ ft}$$

$$\text{height} = 4 \times \frac{1}{2} \text{ ft}$$

Now, substitute these measurements into the formula of the volume of a prism.

$$\begin{aligned} \text{Volume} &= \left(8 \times \frac{1}{2} \text{ ft}\right) \times \left(3 \times \frac{1}{2} \text{ ft}\right) \times \left(4 \times \frac{1}{2} \text{ ft}\right) \\ &= 4 \text{ ft} \times \frac{3}{2} \text{ ft} \times 2 \text{ ft} \\ &= 12 \text{ cu ft} \end{aligned}$$

The volume of the prism found by both the methods is the same.

So the volume of the prism is **12 cu ft**.

9. The volume of a prism can be determined using the formula below.

$$\text{Volume} = \text{length} \times \text{width} \times \text{height}$$

Since each cube measures $\frac{1}{4}$ of an inch on one side, then the dimensions of the prism are shown below.

$$\text{length} = 3 \times \frac{1}{4} \text{ in}$$

$$\text{width} = 2 \times \frac{1}{4} \text{ in}$$

$$\text{height} = 2 \times \frac{1}{4} \text{ in}$$

Substitute these dimensions into the volume formula to determine the volume of the prism.

$$\begin{aligned} \text{Volume} &= \left(3 \times \frac{1}{4} \text{ in}\right) \times \left(2 \times \frac{1}{4} \text{ in}\right) \times \left(2 \times \frac{1}{4} \text{ in}\right) \\ &= \frac{3}{4} \text{ in} \times \frac{2}{4} \text{ in} \times \frac{2}{4} \text{ in} \\ &= \frac{3}{4} \text{ in} \times \frac{1}{2} \text{ in} \times \frac{1}{2} \text{ in} \\ &= \frac{3}{16} \text{ cubic in} \end{aligned}$$

10. The formula for the volume of a rectangular prism is shown below.

$$V = l \cdot w \cdot h$$

To find the volume of the rectangular prism, substitute the values given in the question into the formula.

$$\begin{aligned} V &= \left(\frac{1}{2} \text{ cm}\right) \cdot \left(\frac{1}{4} \text{ cm}\right) \cdot \left(\frac{4}{5} \text{ cm}\right) \\ &= \frac{4}{40} \text{ cu cm} \\ &= \frac{1}{10} \text{ cu cm} \end{aligned}$$

Answers

1. B
2. D
3. A
4. C
5. B
6. D
7. C
8. B
9. A
10. C



Answers: Language Arts - Punctuation

1. C
2. B
3. B
4. D
5. A
6. C
7. A
8. B
9. A
10. --

Explanations: Language Arts - Punctuation

1. The phrase "leafy and green" is considered nonessential. This means that it does not change the meaning of the sentence if removed. The phrase is correctly set apart from the sentence by a comma. Parentheses and dashes are other ways to set off nonessential phrases. This phrase describes the trees under which the traveler sits.
2. There shouldn't be any commas in the sentence since it is one long independent clause. Also, don't forget the period at the end of the sentence.
3. The phrase "an accomplished chef" is considered nonessential. This means that it does not change the meaning of the sentence if it is removed. The phrase is correctly set apart from the sentence by a pair of commas. Dashes and parentheses are other ways to set off nonessential phrases. This phrase describes Peter's profession.
4. The phrase "heavily frosted with ice crystals" is considered nonessential. This means that it does not change the meaning of the sentence if removed. The phrase is correctly set apart from the sentence by a comma. Parentheses and dashes are other ways to set off nonessential phrases. This phrase describes the Popsicle, which is covered with ice crystals.
5. The phrase "which was racing away from her" is considered nonessential. This means that it does not change the meaning of the sentence if it is removed. The phrase is correctly set apart from the sentence by a pair of commas. Dashes and parentheses are other ways to set off nonessential phrases. This phrase describes what the trolley is doing—it is racing away from Clara. The word "which" usually indicates nonessential information.
6. The phrase "an item on her shopping list" is considered nonessential. This means that it does not change the meaning of the sentence if it is removed. The phrase is correctly set apart from the sentence by a dash. Parentheses and commas are other ways to set off nonessential phrases. This phrase provides information about the flour—it is an item on Yvette's shopping list. The word "that" indicates the beginning of an essential clause, so it does not need a preceding comma or dash.
7. With more than two items in a series, make sure that each item is separated by a comma. Also, don't forget the period at the end of the sentence.
8. The phrase "including the mayor's house and the park" is considered nonessential. This means that it does not change the meaning of the sentence if removed. The phrase is correctly set apart from the sentence by a pair of parentheses. Parentheses and dashes are other ways to set off nonessential phrases. This phrase provides information about the view in Hayden's bedroom.
9. The correct answer should have quotation marks around what the president said. There should be a comma after the opening phrase to introduce the quote. Also, there should be a comma after the introductory phrase *inside* the quote ("For all of us Americans"). Also, don't forget the period at the end of the sentence. It should go inside of the quotation marks.
10. In the first blank, the initials "YMCA" need parentheses around them. These four initials represent the name of the organization, which is spelled out at the beginning of the sentence.
In the second blank, a semicolon is needed to separate the two independent clauses because there is no coordinating conjunction.

Helping Hands

Worksheet A

- 1 evacuation, decoration, instruction, explosion, desperation, organization
- 2 universe, music, critic, pirate, ignore
- 3 assistant, dangerous, personal, reliable, nervous
- 4 electricity, insufficient, partially, mysterious, occasional



Spelling Challenge

flute, saxophone, oboe, clarinet, trombone

Worksheet B

- 1 undesirable, dissimilar, unfamiliar, independent, insufficient, uncomfortable
- 2 minister, official; personal, assistant; electrician, dangerous; vigilant, explosion; technician, portable
- 3 commercially, sufficiently, desperately, regularly, persistently, musically, similarly, regionally
- 4 persistent, dependants, confident, correspondent, ignorant



Spelling Challenge

t r o m b o n e s
_ _ _ _ _

4 letters: bent, best, bets, bone, boom, boon, boot, bore, born, eons, mobs, moon, moor, moot, more, morn, most, nest, nets, norm, nose, note, oboe, omen, ones, onto, ores, rent, rest, robe, robs, room, root, rose, rots, sent, snob, snot, some, soon, soot, sore, sort, stem, tens, term, toes, tomb, tone, tons, tore, torn

5 letters: bones, booms, boost, boots, bores, borne, bosom, broom, metro, moons, moors, moose, moron, motor, noose, norms, notes, omens, onset, rents, robes, robot, rooms, roost, roots, smote, snore, snort, sober, stern, stone, store, storm, tenor, terms, tombs, tomes, toner, tones, torso