

Using Estimation with Decimals

Name: _____

Solve the problems.

- 1** Lori needs at least 12 liters of water to fill a water cooler. She has a container with 4.55 liters of water, a container with 3.25 liters of water, and a container with 4.85 liters of water. Does she have enough water? Use estimation only to decide. Explain why you are confident in your estimate.

- 2** Nia wants the total weight of her luggage to be no more than 50 kilograms. She has three suitcases that weigh 15.8 kilograms, 17.42 kilograms, and 16.28 kilograms. Is the total weight within the limit? Use only estimation to decide. Explain how you know your estimate gives you the correct answer.

- 3** Omar measures one machine part with length 4.392 centimeters and another part with length 6.82 centimeters. What is the difference in length? Use estimation to check your answer for reasonableness.

Using Estimation with Decimals *continued*

Name: _____

- 4** Kyle wants to buy a hat for \$5.75, a T-shirt for \$7.65, and a keychain for \$3.15. He has \$16. Does he have enough money? Use estimation only to decide. Explain why you are confident in your estimate.
- 5** For his hiking club, Ricardo is making a container of trail mix with 3.5 kilograms of nuts. He has 1.78 kilograms of peanuts and 0.625 kilograms of almonds. The rest of the nuts will be cashews. How many kilograms of cashews does he need? Use estimation to check your answer for reasonableness.
- 6** Suppose you want to be sure that the total cost of three items does not go over a certain amount. How can you use estimation only to solve the problem?

Multiplying a Decimal by a Whole Number

Name: _____

Multiply.

1 3×0.2

2 3×0.03

3 3×0.23

4 4×0.08

5 4×1.1

6 4×1.18

7 6×0.07

8 6×1.1

9 6×1.17

10 21×0.05

11 21×1.05

12 21×2.05

13 9×3.25

14 5×0.87

15 11×3.68

16 16×6.4

17 7×6.89

18 32×5.12

19 How did you know where to put the decimal point in problem 6?

Multiplying Decimals Less Than 1

Name: _____

Multiply.

1 0.5×3

2 0.5×0.3

3 0.5×0.03

4 6×0.2

5 0.6×0.2

6 0.06×0.2

7 0.8×0.1

8 0.8×0.2

9 0.8×0.3

10 0.4×0.02

11 0.4×0.04

12 0.4×0.12

13 0.3×0.4

14 0.6×0.4

15 0.6×0.8

16 0.01×0.5

17 0.05×0.5

18 0.25×0.5

19 Describe a pattern you noticed when you were completing the problem set.

Multiplying with Decimals Greater Than 1

Name: _____

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 0.3×1.2

2 1.2×0.4

3 1.2×1.1

4 0.3×12.1

5 4.4×1.1

6 0.02×1.8

7 7.1×5.1

8 6.6×0.02

9 2.4×4.8

10 9.2×5.24

11 1.2×1.24

12 8.4×6.2

13 4.2×3.21

14 4.25×8.5

15 1.9×2.78

Answers

0.132

1.32

13.482

1.488

48.208

4.84

0.48

52.08

11.52

5.282

36.125

0.036

0.36

3.63

36.21

Dividing a Decimal by a Whole Number

Name: _____

Multiply to check if the student's answer is reasonable. If not, cross out the answer and write the correct quotient.

Division Problems	Student Answers
$0.88 \div 11$	0.8 0.08 Product: $11 \times 0.8 = 8.8$
$5.6 \div 8$	0.07
$7.2 \div 9$	0.8
$25.35 \div 5$	5.7
$21.7 \div 7$	3.1
$14.4 \div 12$	0.12
$96.16 \div 8$	12.2
$60.18 \div 2$	30.9

1 Can an answer be incorrect even if it looks reasonable? Explain.

Dividing by Hundredths

Name: _____

Divide.

1 $1 \div 0.25$

2 $4 \div 0.25$

3 $3.75 \div 0.25$

4 $6.5 \div 0.25$

5 $1.8 \div 9$

6 $1.8 \div 0.9$

7 $1.8 \div 0.09$

8 $225 \div 75$

9 $22.5 \div 7.5$

10 $2.25 \div 0.75$

11 $0.36 \div 0.06$

12 $6.36 \div 0.06$

13 $36.36 \div 0.06$

14 $9 \div 2.25$

15 $13.5 \div 2.25$

16 Describe a pattern you noticed when you were completing the problem set.