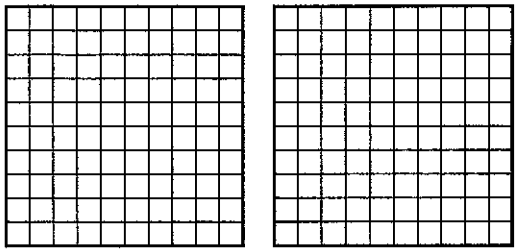
Understanding of Place Value

Name: _____

1 The decimal grid in each model represents 1 whole. Shade each model to show the decimal number below the model.



0.5 **0.05**

Complete the comparison statements.

0.05 is _____ of 0.5.

0.5 is _____ times the value of 0.05.

Complete the equations.

$0.5 \div$ _____ $= 0.05$

$0.05 \times$ _____ $= 0.5$

2 Draw a number line from 0 to 2. Then draw and label points at 2 and 0.2.

Use the number line to explain why 2 is 10 times the value of 0.2.

Complete the equations to show the relationship between 2 and 0.2.

$0.2 \times$ _____ $= 2$

$2 \div$ _____ $= 0.2$

3 Which type of model do you like best? Explain why.

Understanding Powers of 10

Name: _____

Multiply or divide.

1. $6 \div 10$ _____
2. $0.6 \div 10$ _____
3. $6 \div 10^2$ _____
4. $0.6 \div 10^2$ _____
5. $6 \div 10^3$ _____
6. $60 \div 10^3$ _____
7. 0.3×10 _____
8. 0.3×10^2 _____
9. 0.3×10^3 _____
10. 0.03×10^2 _____
11. 0.003×10^2 _____
12. 0.03×10^3 _____
13. $72 \div 10$ _____
14. 0.72×10^2 _____
15. $7{,}200 \div 10^3$ _____
16. $20 \div 10^2$ _____
17. 0.9×10^3 _____
18. 0.001×10^2 _____
19. $54 \div 10$ _____
20. $150 \div 10^3$ _____
21. 0.46×10^3 _____

22. What strategies did you use to solve the problems? Explain.

Reading a Decimal in Word Form

Name: _____

What is the word form of each decimal?

1. 0.2

   _____

2. 0.02

   _____

3. 0.002

   _____

4. 0.12

   _____

5. 0.012

   _____

6. 0.102

   _____

7. 1.002

   _____

8. 9.4

   _____

9. 90.04

   _____

10. 0.94

    _____

11. 500.2

    _____

12. 8.008

    _____

13. 700.06

    _____

14. 6.335

    _____

15. 3,000.001

    _____

16. What strategies did you use to help you read the decimals? Explain.

Writing a Decimal in Standard Form

Name: _____

What decimal represents each number?

1. one and six tenths

_____

2. eight and eleven hundredths

_____

3. $6 \times 1 + 5 \times \frac{1}{10}$

_____

4. thirteen and thirteen thousandths

_____

5. $2 \times 10 + 7 \times \frac{1}{10} + 3 \times \frac{1}{100}$

_____

6. $4 \times 1 + 1 \times \frac{1}{100} + 9 \times \frac{1}{1{,}000}$

_____

7. five hundred twelve thousandths

_____

8. $8 \times 100 + 2 \times \frac{1}{10} + 8 \times \frac{1}{1{,}000}$

_____

9. $2 \times 1 + 4 \times \frac{1}{100}$

_____

10. forty-two and forty-one hundredths

_____

11. $7 \times 100 + 2 \times 10 + 3 \times 1 + 6 \times \frac{1}{10}$

_____

12. twelve and sixty-eight thousandths

_____

13. $3 \times 1{,}000 + 6 \times 100 + 3 \times 10 + 7 \times \frac{1}{10} + 2 \times \frac{1}{100} + 8 \times \frac{1}{1{,}000}$

_____

14. nine hundred fifty-six and four hundred twenty-seven thousandths

_____

15. How was writing decimals for numbers in word form different from numbers in expanded form?

Comparing Decimals

Name: _____

Write the symbol <, =, or > in each comparison statement.

1. 0.02 _____ 0.002
2. 0.05 _____ 0.5
3. 0.74 _____ 0.84
4. 0.74 _____ 0.084
5. 1.2 _____ 1.25
6. 5.130 _____ 5.13
7. 3.201 _____ 3.099
8. 0.159 _____ 1.590
9. 8.269 _____ 8.268
10. 4.60 _____ 4.060
11. 302.026 _____ 300.226
12. 0.237 _____ 0.223
13. 3.033 _____ 3.303
14. 9.074 _____ 9.47
15. 6.129 _____ 6.19
16. 567.45 _____ 564.75
17. 78.967 _____ 78.957
18. 5.346 _____ 5.4
19. 12.112 _____ 12.121
20. 26.2 _____ 26.200
21. 100.32 _____ 100.232

22. What strategies did you use to solve the problems? Explain.

Rounding Decimals

Name: _____

Round each decimal to the nearest tenth.

1. 0.32 _____
2. 3.87 _____
3. 0.709 _____
4. 12.75 _____
5. 12.745 _____
6. 645.059 _____

Round each decimal to the nearest hundredth.

7. 1.079 _____
8. 0.854 _____
9. 0.709 _____
10. 12.745 _____
11. 645.059 _____
12. 50.501 _____

Round each decimal to the nearest whole number.

13. 1.47 _____
14. 12.5 _____
15. 200.051 _____

16. Write two different decimals that are the same value when rounded to the nearest tenth. Explain why the rounded values are the same.

17. Round 1.299 to the nearest tenth and to the nearest hundredth. Explain why the rounded values are equivalent.

Multiplying Multi-Digit Whole Numbers

Name: _____

Estimate. Circle all the problems with products between 3,000 and 9,000. Then find the exact products of only the problems you circled.

1. 132 × 34

2. 247 × 15

3. 145 × 23

4. 308 × 12

5. 158 × 41

6. 364 × 32

7. 400 × 29

8. 254 × 17

9. 187 × 42

10. 216 × 12

11. 323 × 18

12. 194 × 26

13. 317 × 14

14. 385 × 31

15. 285 × 27

16. What strategies did you use to solve the problems? Explain.