Name _____

Topic 6
Assessment

1. James bought 10 pencils from the school store and paid a total of $1.30. How much did each pencil cost? Write an equation to show your work. Explain how the decimal point moves.

2. Over the course of 6 days, Tonda ran 17.22 miles. She ran the same distance each day. How far did Tonda run each day? Write an equation to show your work.

3. Choose the correct quotient for each expression. Use number sense and estimation to help.

	79.4	21	8.58	91.6
50.4 ÷ 2.4	❒	❒	❒	❒
77.86 ÷ 0.85	❒	❒	❒	❒
95.28 ÷ 1.2	❒	❒	❒	❒
81.51 ÷ 9.5	❒	❒	❒	❒

4. What is the value of the missing exponent in the equation $720 \div 10^{\square} = 0.720$?

Ⓐ 1 Ⓒ 3

Ⓑ 2 Ⓓ 4

5. A panel in one of the hallways of Emilio's school is rectangular with an area of 44.52 square feet. If the panel is 21 feet long, how wide is it?

Ⓐ 0.212 feet Ⓒ 2.12 feet

Ⓑ 1.12 feet Ⓓ 21.2 feet

6. A soccer team spent $216 on 15 new soccer balls. Each ball cost the same.

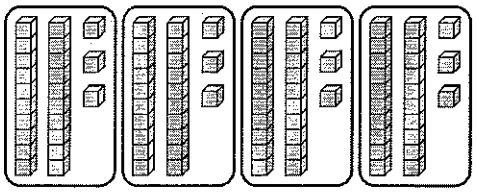
A. Estimate the cost of each soccer ball. Write an equation to show your work.

B. Find the exact cost of each soccer ball. Compare your answer to your estimate to check for reasonableness.

7. Select all of the following equations that are true when 27.3 is used. Use number sense to help.

- ☐ ☐ ÷ 10 = 2.73
- ☐ ☐ ÷ 1 = 27.3
- ☐ ☐ ÷ 1 = 2.73
- ☐ ☐ ÷ 10 = 27.3
- ☐ ☐ ÷ 100 = 0.273

8. Which division equation does the model Mizuki made represent?



Ⓐ $1.28 \div 4 = 0.32$

Ⓑ $1.28 \div 4 = 0.23$

Ⓒ $0.92 \div 4 = 0.32$

Ⓓ $0.92 \div 4 = 0.23$

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9. If 8 pounds of peanuts costs $12, how much does 1 pound of peanuts cost? Use the answer to find how much 10 pounds of peanuts will cost.

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10. Use the equation $3.4 \div n = 0.34$.

A. What value of n makes the equation true? Write your answer using an exponent.

B. Explain how you know your answer is correct.

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11. Alexandra is dividing 52.8 ounces of cereal equally into 9 bags. Which is the best way to estimate the amount of cereal in each bag?

Ⓐ $56 \div 7 = 8$

Ⓑ $54 \div 9 = 6$

Ⓒ $50 \div 5 = 10$

Ⓓ $55 \div 11 = 5$

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12. Ken bought 15 erasers for $4.20. Each eraser cost the same amount.

A. Estimate the amount Ken paid for each eraser. Write an equation to model your work.

B. Find the exact cost of each eraser.

C. Compare your estimate to your answer. Is your answer reasonable? Explain.

13. Choose the correct quotient for each expression.

	0.603	0.63	0.063	6.03
$60.3 \div 10^2$	❒	❒	❒	❒
$0.63 \div 10$	❒	❒	❒	❒
$6{,}030 \div 10^3$	❒	❒	❒	❒
$63 \div 10^2$	❒	❒	❒	❒

14. A parks department is fencing off a square portion of a park for a memorial. The perimeter of the square is 50.8 meters.

A. How many meters long is each side of the square? Write an equation to model your work.

B. Ten posts were used to secure the fence. A hole was dug for each post and a total of 23.5 pounds of concrete were poured into the holes. An equal amount of concrete was poured into each hole. How much concrete was poured into each hole?

15. Select all of the following equations that are true when 88.2 is used. Use number sense to help.

- ☐ ☐ $\div 10^3 = 0.0882$
- ☐ ☐ $\div 10^1 = 882$
- ☐ ☐ $\div 10^0 = 8.82$
- ☐ ☐ $\div 10^0 = 88.2$
- ☐ ☐ $\div 10^2 = 88.2$

16. A box of oil paints contains 9 cans of different colors. Each can is the same weight. If the box weighs 20.25 pounds, how much does each can weigh? How many pounds in total would a box of oil paints be if the weight per can remained the same and there were 6 cans in the box? Show your work.

17. One serving of Luna's tomato soup is 0.75 cup. How many servings are in a 72-cup pot? Evaluate the expression $72 \div 0.75$ to help you.

Ⓐ 104.2 servings Ⓒ 10.42 servings

Ⓑ 96 servings Ⓓ 9.6 servings

18. When solving $62.1 \div 10^3$, how is the decimal point moved?

Ⓐ 3 places to the right

Ⓑ 3 places to the left

Ⓒ 2 places to the right

Ⓓ 2 places to the left

19. A board is 10.17 feet long. Sandy needs to cut the board into 3 equal sections. How long will each section be? How many sections would be needed for each section of the 10.17-foot-long board to be 5.085 feet each? Write an equation to model your work.

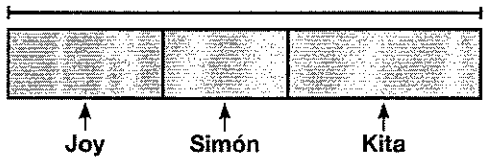
20. When dividing 751.6 by 10^2, how should the decimal point be moved?

21. Hunter says that there should be a decimal point in the quotient below after the 6. Is he correct? Use number sense to explain your answer.

$69.48 \div 7.2 = 965$

22. Three friends are participating in a charity run. Joy ran 6.8 miles, Simón ran 5.5 miles, and Kita has run 8.4 miles.

A. Complete the bar diagram to find the total distance the friends have run.



B. If each friend ran the same distance of the charity run, how many miles would each friend run? Complete the bar diagram to help you.

C. It took Simón 33 minutes to run 5.5 miles. Did he run faster or slower than 1 mile every 5 minutes? How can you tell?

Name _____

1. James bought 10 pencils from the school store and paid a total of $1.30. How much did each pencil cost? Write an equation to show your work. Explain how the decimal point moves. **3 points**

Each pencil cost $0.13.
$1.30 ÷ 10 = $0.13.
The decimal point moves 1 place to the left.

2. Over the course of 6 days, Tonda ran 17.22 miles. She ran the same distance each day. How far did Tonda run each day? Write an equation to show your work. **2 points**

2.87 miles;
17.22 ÷ 6 = 2.87

3. Choose the correct quotient for each expression. Use number sense and estimation to help. **1 point**

	79.4	21	8.58	91.6
50.4 ÷ 2.4	☐	■	☐	☐
77.86 ÷ 0.85	☐	☐	☐	■
95.28 ÷ 1.2	■	☐	☐	☐
81.51 ÷ 9.5	☐	☐	■	☐

4. What is the value of the missing exponent in the equation $720 \div 10^{\square} = 0.720$? **1 point**

Ⓐ 1 ● 3

Ⓑ 2 Ⓓ 4

5. A panel in one of the hallways of Emilio's school is rectangular with an area of 44.52 square feet. If the panel is 21 feet long, how wide is it? **1 point**

Ⓐ 0.212 feet ● 2.12 feet

Ⓑ 1.12 feet Ⓓ 21.2 feet

6. A soccer team spent $216 on 15 new soccer balls. Each ball cost the same.

A. Estimate the cost of each soccer ball. Write an equation to show your work. **2 points**

Sample answer: $15;
225 ÷ 15 = 15

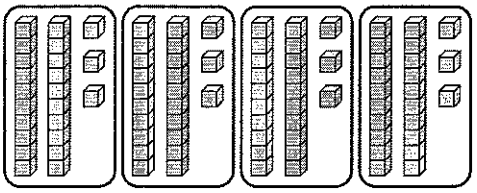
B. Find the exact cost of each soccer ball. Compare your answer to your estimate to check for reasonableness. **2 points**

$14.40; Sample explanation: My answer is close to my estimate, so my answer is reasonable.

7. Select all of the following equations that are true when 27.3 is used. Use number sense to help. **1 point**

- ■ ☐ ÷ 10 = 2.73
- ■ ☐ ÷ 1 = 27.3
- ☐ ☐ ÷ 1 = 2.73
- ☐ ☐ ÷ 10 = 27.3
- ■ ☐ ÷ 100 = 0.273

8. Which division equation does the model Mizuki made represent? **1 point**



Ⓐ $1.28 \div 4 = 0.32$

Ⓑ $1.28 \div 4 = 0.23$

Ⓒ $0.92 \div 4 = 0.32$

● $0.92 \div 4 = 0.23$

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9. If 8 pounds of peanuts costs $12, how much does 1 pound of peanuts cost? Use the answer to find how much 10 pounds of peanuts will cost. **2 points**

1 pound costs $1.50; $1.5 \times 10 = 15$; $15 for 10 pounds.

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10. Use the equation $3.4 \div n = 0.34$.

A. What value of n makes the equation true? Write your answer using an exponent. **1 point**

10^1

B. Explain how you know your answer is correct. **1 point**

Sample answer: The decimal point moved 1 place to the left, so I know the divisor is 10^1.

11. Alexandra is dividing 52.8 ounces of cereal equally into 9 bags. Which is the best way to estimate the amount of cereal in each bag? **1 point**

Ⓐ $56 \div 7 = 8$

● $54 \div 9 = 6$

Ⓒ $50 \div 5 = 10$

Ⓓ $55 \div 11 = 5$

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12. Ken bought 15 erasers for $4.20. Each eraser cost the same amount.

A. Estimate the amount Ken paid for each eraser. Write an equation to model your work. **2 points**

Sample answer: $0.30; $4.5 \div 15 = 0.3$

B. Find the exact cost of each eraser. **1 point**

$0.28; $4.20 \div 15 = 0.28$

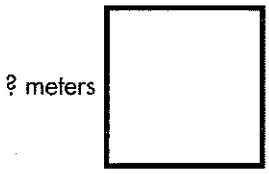
C. Compare your estimate to your answer. Is your answer reasonable? Explain. **2 points**

Sample answer: $0.28 is close to $0.30, so my answer is reasonable.

13. Choose the correct quotient for each expression. **1 point**

	0.603	0.63	0.063	6.03
$60.3 \div 10^2$	■	❐	❐	❐
$0.63 \div 10$	❐	❐	■	❐
$6{,}030 \div 10^3$	❐	❐	❐	■
$63 \div 10^2$	❐	■	❐	❐

14. A parks department is fencing off a square portion of a park for a memorial. The perimeter of the square is 50.8 meters.



A. How many meters long is each side of the square? Write an equation to model your work. **2 points**

12.7 meters; 50.8 ÷ 4 = 12.7

B. Ten posts were used to secure the fence. A hole was dug for each post and a total of 23.5 pounds of concrete were poured into the holes. An equal amount of concrete was poured into each hole. How much concrete was poured into each hole? **1 point**

2.35 pounds

15. Select all of the following equations that are true when 88.2 is used. Use number sense to help. **1 point**

- ■ ☐ $\div 10^3 = 0.0882$
- ☐ ☐ $\div 10^1 = 882$
- ☐ ☐ $\div 10^0 = 8.82$
- ■ ☐ $\div 10^0 = 88.2$
- ☐ ☐ $\div 10^2 = 88.2$

16. A box of oil paints contains 9 cans of different colors. Each can is the same weight. If the box weighs 20.25 pounds, how much does each can weigh? How many pounds in total would a box of oil paints be if the weight per can remained the same and there were 6 cans in the box? Show your work. **2 points**

A can weighs 2.25 pounds; 20.25 ÷ 9 = 2.25. If there were 6 cans, the box would be 13.5 pounds; 2.25 × 6 = 13.5

17. One serving of Luna's tomato soup is 0.75 cup. How many servings are in a 72-cup pot? Evaluate the expression $72 \div 0.75$ to help you. **1 point**

Ⓐ 104.2 servings Ⓒ 10.42 servings

● 96 servings Ⓓ 9.6 servings

18. When solving $62.1 \div 10^3$, how is the decimal point moved? **1 point**

Ⓐ 3 places to the right

● 3 places to the left

Ⓒ 2 places to the right

Ⓓ 2 places to the left

19. A board is 10.17 feet long. Sandy needs to cut the board into 3 equal sections. How long will each section be? How many sections would be needed for each section of the 10.17-foot-long board to be 5.085 feet each? Write an equation to model your work. **3 points**

3.39 feet;
$10.17 \div 3 = 3.39$
2 sections;
$10.17 \div 5.085 = 2$

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20. When dividing 751.6 by 10^2, how should the decimal point be moved? **1 point**

Sample explanation: Since the divisor is 10^2, the decimal point should move 2 places to the left.

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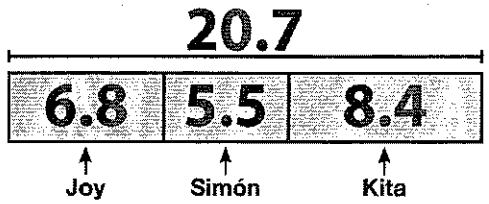
21. Hunter says that there should be a decimal point in the quotient below after the 6. Is he correct? Use number sense to explain your answer. **2 points**

$69.48 \div 7.2 = 965$

Hunter is not correct. Sample explanation: I used compatible numbers to estimate: $70 \div 7 = 10$; and 10 is not close to 96.5. The decimal goes after the 9.

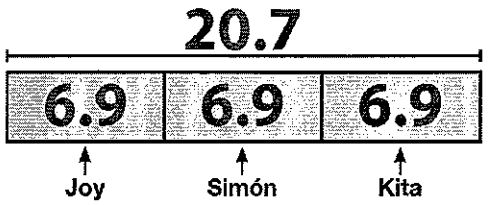
22. Three friends are participating in a charity run. Joy ran 6.8 miles, Simón ran 5.5 miles, and Kita has run 8.4 miles.

A. Complete the bar diagram to find the total distance the friends have run. **2 points**



20.7 miles

B. If each friend ran the same distance of the charity run, how many miles would each friend run? Complete the bar diagram to help you. **2 points**



C. It took Simón 33 minutes to run 5.5 miles. Did he run faster or slower than 1 mile every 5 minutes? How can you tell? **2 points**

Slower. $33 \div 5.5 = 6$; 6 minutes is greater than 5 minutes so Simon ran slower than 1 mile every 5 minutes.