Section A: Practice Problems

1. **Pre-unit**

Find the value of each expression.

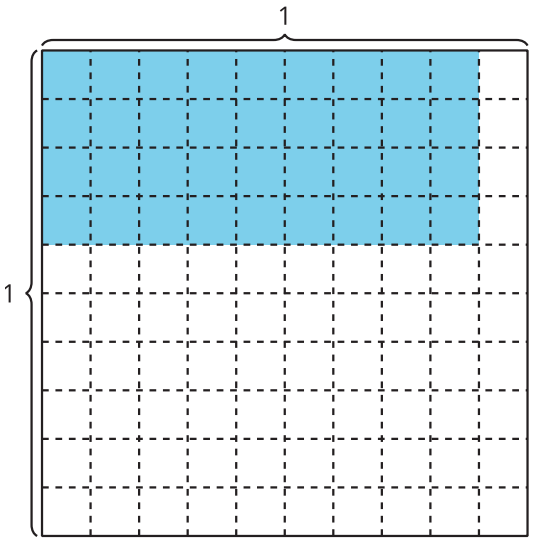
a. $\frac{1}{3} \times \frac{1}{10}$

b. $\frac{1}{10} \times \frac{1}{10}$

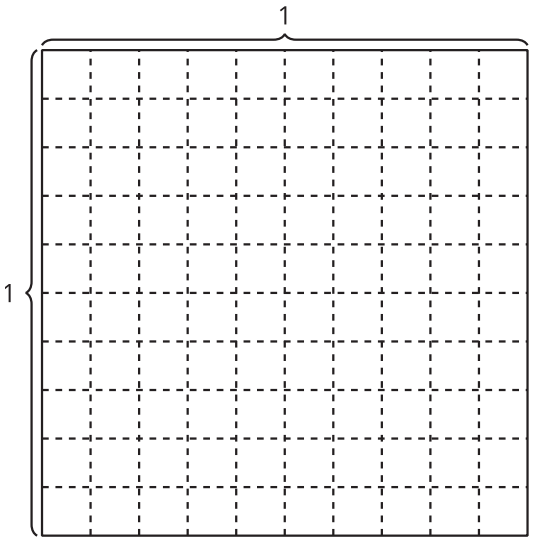
c. $\frac{1}{10} \times \frac{1}{100}$

2. **Pre-unit**

a. Write a multiplication equation shown by the shaded region of the diagram.

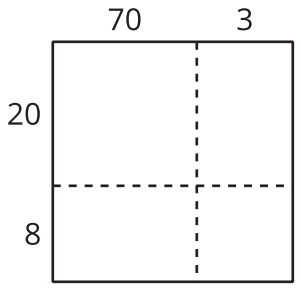


b. What is the value of $\frac{7}{10} \times \frac{5}{10}$? Use the grid if it is helpful.



3. **Pre-unit**

Find the value of 73×28. Use the diagram if it is helpful.



4. **Pre-unit**

a. What is the value of the 6 in 618,923?

b. How many times greater is the value of the 6 in 618,923 than the 6 in 27,652?

5. **Pre-unit**

Find the value of $3{,}724 \div 7$. Explain or show your reasoning.

6. **Pre-unit**

Find the value of each sum or difference.

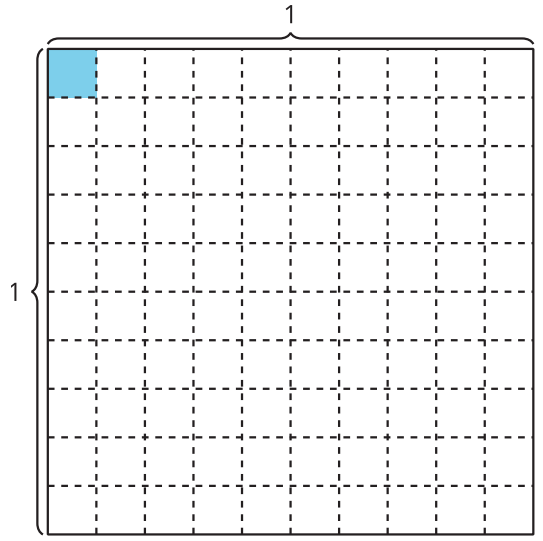
a.

$$\begin{array}{r} 13,817 \\ +\ \ 6,544 \\ \hline \end{array}$$

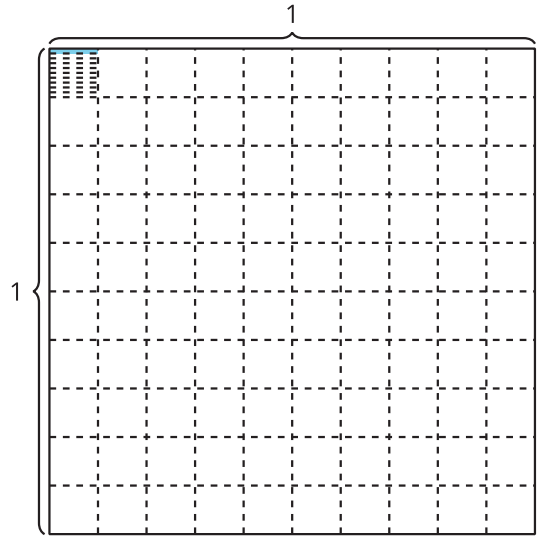
b.

$$\begin{array}{r} 8,793 \\ -\ 4,675 \\ \hline \end{array}$$

7. a. What fraction of the whole square is shaded? Explain or show your reasoning.

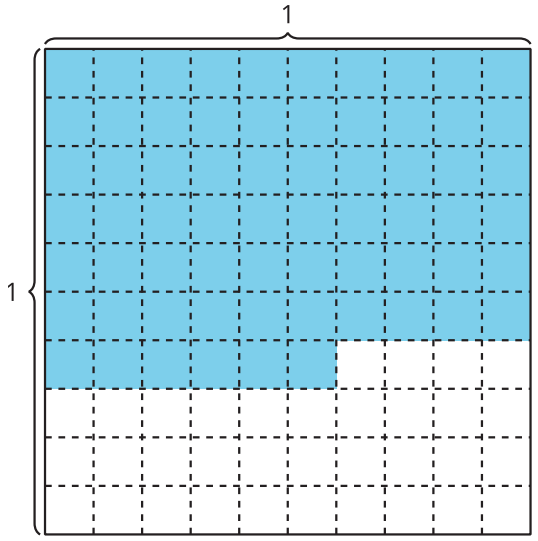


b. What fraction of the whole square is shaded? Explain or show your reasoning.

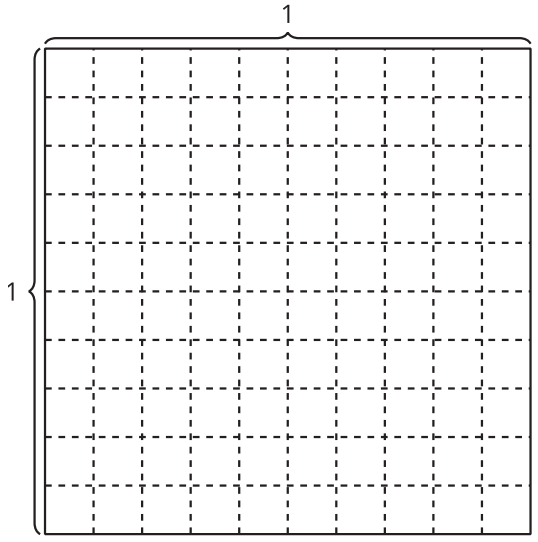


(From Unit 5, Lesson 1.)

8. a. Write a decimal number to represent how much of the square is shaded.



b. Shade one hundred fifteen thousandths of the square.

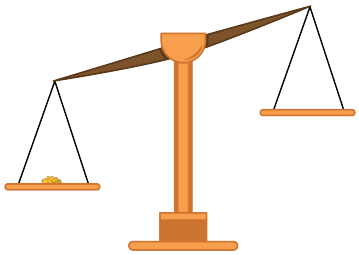


(From Unit 5, Lesson 2.)

9. Write the decimal 0.418 as a fraction, in words, and in expanded form.

(From Unit 5, Lesson 3.)

10. a. A gold nugget weighs 0.265 ounces. Name 2 different sets of 0.1 ounce, 0.01 ounce, and 0.001 ounce weights you can use to balance the nugget.



b. One gold nugget weighs 0.008 ounces. A second gold nugget weighs 0.8 ounces.

- How many times as much as the first nugget does the second nugget weigh?

- How many times as much as the second nugget does the first nugget weigh?

(From Unit 5, Lesson 4.)

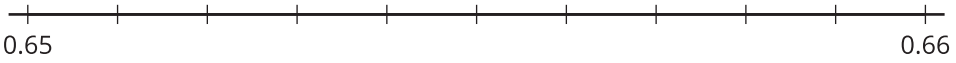
11. Noah threw the frisbee 4.89 yards.

a. Noah threw the frisbee farther than Lin. How far could Lin have thrown the frisbee?

b. Andre threw the frisbee farther than Noah but less than 4.9 yards. How far could Andre have thrown the frisbee? Explain your reasoning.

(From Unit 5, Lesson 5.)

12. a. Label the tick marks. Use the number line to explain your reasoning.

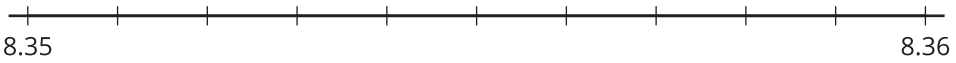


b. Which is greater, 0.654 or 0.658? Explain or show your reasoning.

(From Unit 5, Lesson 6.)

13. A $5 gold coin weighs 8.359 grams.

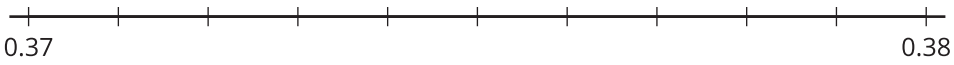
a. Locate 8.359 on the number line.



b. A scale measures to the nearest 0.01 gram. What will the scale show for the weight of the coin? Explain or show your reasoning.

(From Unit 5, Lesson 7.)

14. a. What is 0.374 rounded to the nearest hundredth? Explain or show your reasoning. Use the number line if it's helpful.



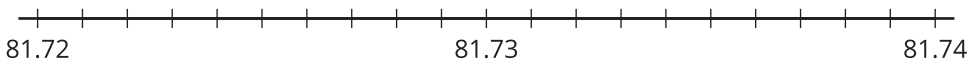
b. What is 9.893 rounded to the nearest tenth? What about to the nearest hundredth? Draw a number line if it is helpful.

(From Unit 5, Lesson 8.)

15. List the decimals from least to greatest: 6.95, 6.895, 6.598, 6.985, 5.986

(From Unit 5, Lesson 9.)

16. To the nearest hundredth of a mile per hour, a luge rider's top speed was 81.73 mph. What are some possible speeds to the thousandth of a mile per hour? Use the number line if it is helpful.



(From Unit 5, Lesson 10.)

17. **Exploration**

a. Jada has 3 doubloons. She knows that two of them have the same weight and one of them is heavier than the other two. Jada also has a balance which she can use to compare the weights of coins. Explain or show how Jada can use the balance to figure out which doubloon is heavier and which two are the same weight.

b. What if Jada has 5 doubloons and knows that 4 of them have the same weight and one of them is heavier?

18. **Exploration**

There are two packages of ground beef at the store. One package says it has 1 pound of beef. The second package says it has 0.97 pounds of beef. Jada says that the 1 pound package has more beef. Do you agree with Jada? Explain or show your reasoning.