

## Fifth Grade Cluster 4 Assessment

### This assessment assesses students' ability to:

- Determine the value of a digit by its place (location) in a number.
- Move a digit one place to the left and explain how the value of the digit is changed using multiplication by 10.
- Move a digit one place to the right and explain how the value of the digit is changed using  $1/10$  of the value.
- Explain patterns in the place of the decimal point when a decimal is multiplied or divided by a power of ten.
- Read and write whole and decimal numbers in standard form, expanded form, and word form.
- Compare numbers by comparing digits in the same place.
- Use number lines and models to round decimals to the nearest half or whole.
- Round decimals to a specific place.

### NCSCOS 2017 Standards:

This assessment addresses each of the following NCSCOS 2017 Standards:

Standard	Questions
NC.5.NBT.1	1, 2, 7, 8, 12, 13
NC.5.NBT.3	4, 5, 10, 11, 15, 16
NC.5.MD.1	3, 9
NC.5.MD.2	6, 14

### Fifth Grade Cluster 4 Assessment Scoring Guide

Question	Standard	Answer
1	NC.5.NBT.1	A
2	NC.5.NBT.1	C
3	NC.5.MD.1	B
4	NC.5.NBT.3	D
5	NC.5.NBT.3	C
6	NC.5.MD.2	A
7	NC.5.NBT.1	B
8	NC.5.NBT.1	C

Question	Standard	Answer
9	NC.5.MD.1	D
10	NC.5.NBT.3	D
11	NC.5.NBT.3	C
12	NC.5.NBT.1	C
13	NC.5.NBT.1	B
14	NC.5.MD.2	D
15	NC.5.NBT.3	C
16	NC.5.NBT.3	B

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

### 5th Grade Cluster 4 Assessment

1. If the 9 in 506,092 is moved two places to the right, how does the value of the 9 change?

- A The 9 is 1/100 of its original value.
- B The 9 is 1/10 of its original value.
- C The 9 has the same value.
- D The 9 is 10 times its original value.

506,092.0  
          10  10  
506002.9

2. What is the value of  $2.64 \times 100$ ?

- A  $26\frac{4}{100}$
- B  $26\frac{4}{10}$
- C 264
- D 2,640

$2 \times 100 = 200$   
 $.6 \times 100 = 60$   
 $.04 \times 100 = 4$   
      264

3. Darius measured the length of his car. The length was 450 centimeters. How many meters long is Darius' car?

- A 0.45 meters
- B 4.5 meters
- C 45 meters
- D 45,000 meters

100cm = 1m  
450  
  100

4. Four students used a stopwatch to see how fast they could run around the perimeter of the playground. They recorded their times in the chart below.

Student	Time in Seconds
Tomas	32.27
Beth	33
Duane	32.1
Vicky	32.09

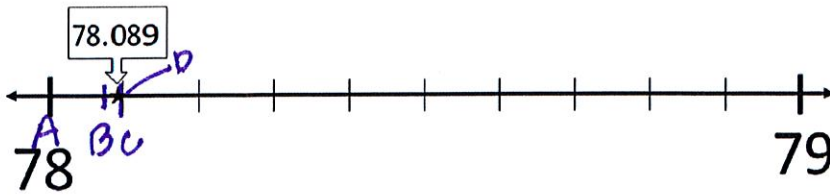
← smaller than

Which student took the least amount of time to run around the perimeter of the playground?

- A Tomas
- B Beth
- D Vicky
- C Duane

33.00  
32.27  
32.10  
32.09

5. Nancy placed 78.089. Which of the following numbers is closest to 78.089?



A 78

B 78.08

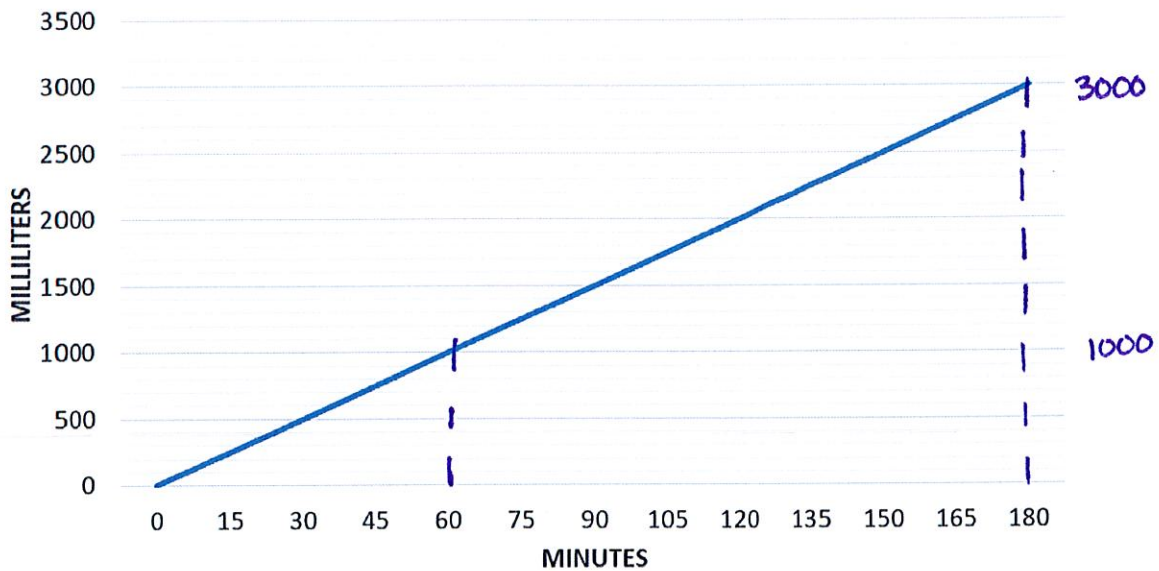
C 78.09

D 78.1

*Handwritten:*  
 $.089$   
 $.000$   
 $.080$   
 $.100$   
 $.090$

6. Kelly's faucet was dripping water. She used a beaker to save and record the amount of water lost every 15 minutes. She recorded the total amount of water lost in the line graph below.

Total Amount of Water Leaking from Dripping Faucet



How many more liters of water had dripped from the faucet by 180 minutes than had dripped after 60 minutes?

A 2 liters

B 3 liters

C 200 liters

D 3,000 liters

*Handwritten:* 2000 mL

*Handwritten:* 1000 mL = 1 L

7. Which equation could be used to represent how the value of 4 changes if it is switched with the 6 in 694,215?

A  $400,000 \times 10 = 4,000,000$

B  $4,000 \times 100 = 400,000$

C  $4,000 \times 10 = 40,000$

D  $4 \times 1,000 = 4,000$

*Handwritten:* 2 spaces  $\times 100$

8. A school district wants to buy calculators for all the 8th grade classes in the school district. If 10 classes in 10 schools receive 10 calculators each, which expression represents the number of calculators the district will buy?

A  $10 + 10 + 10$

B  $3 \times 10$

C  $10 \times 10 \times 10$

D  $10 + 10 \times 10$

*Handwritten:*  $100 \times 100 = 100 \times 10$



9. Anna's new baby sister weighs 4,056 grams. How many kilograms does the baby weigh?

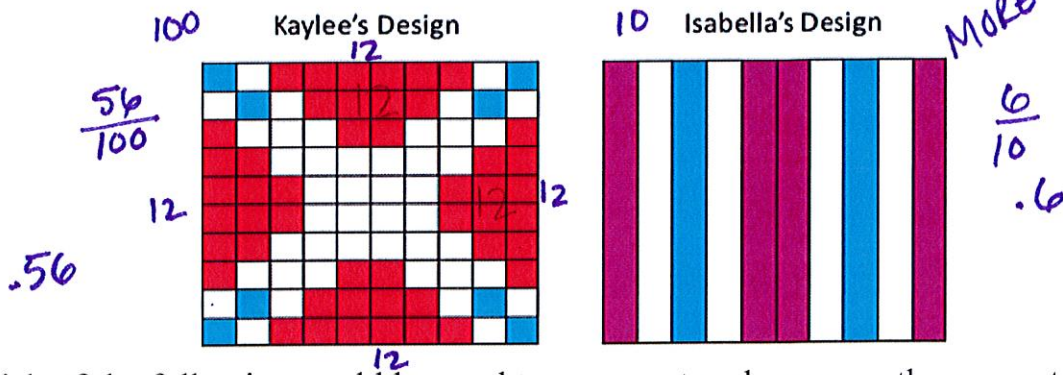
- A 40,560 kilograms  
C 40.56 kilograms

- B 405.6 kilograms  
D 4.056 kilograms

$$1000g = 1kg$$

$$\frac{4056}{1000}$$

10. Kaylee and Isabella created designs on decimal grids.



Which of the following could be used to represent and compare the amount of the grids that are shaded?

- A  $0.06 < 0.56$   
C  $0.56 > 0.06$

- B  $0.56 > 0.6$   
D  $0.6 > 0.56$

11. Erika created the number line below. She placed a mark to show each tenth. Then she put a dot on the number line to show the location of 2.17. Help her by doing the following:

- Label the number line by tenths.
- Put a dot 2.17 on the number line.

Which tenth mark is closest to 2.17?



- A 2.0  
C 2.2

- B 2.1  
D 2.3

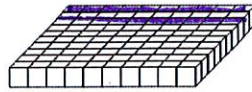
12. Mrs. Crawley earns \$24 for every hour she works. Her goal is to earn \$24,000. Which shows the number of hours Mrs. Crawley will have to work to reach her goal?

- A 10  
C 1,000

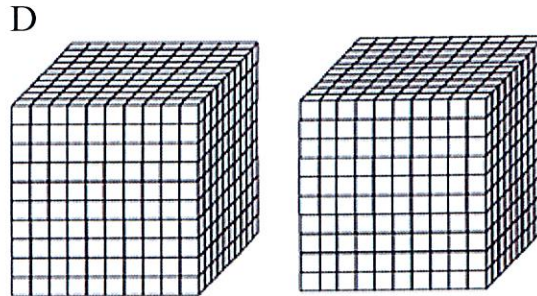
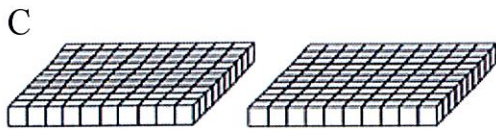
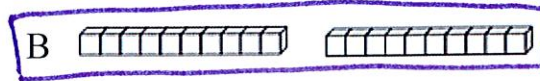
- B 100  
D 10,000

$$\frac{24,000}{24} = 1,000$$

13. Imani used the base ten blocks below to represent the number 1.

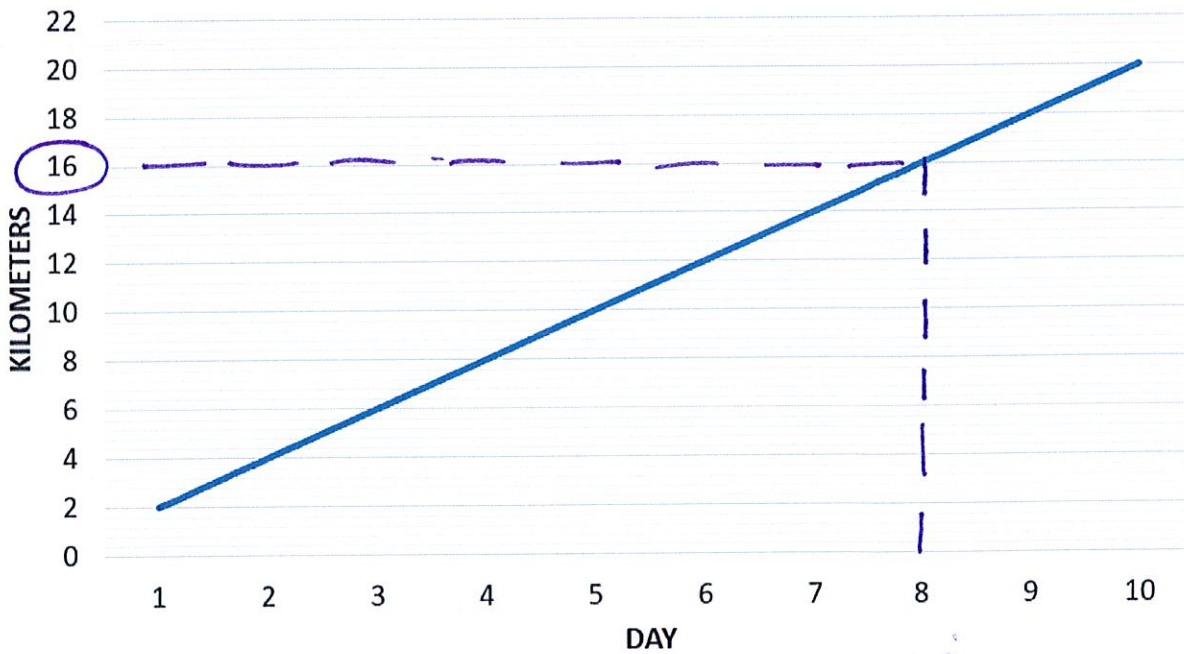


She wants to show the size of 0.2 next to her first representation. Which representation below should she use?



14. Aldin is practicing for a bike race. Each day he bikes 2 kilometers farther than the day before. He recorded the data in the line graph below.

Total Kilometers Biked Each Day



How many meters did Aldin ride on Day 8?

A 16

B 20

C 1,600

D 16,000

16 km

1000m = 1 km

16 x 1000

15. After summer break, the school took a survey to see how many students had traveled out of North Carolina during the break. One thousand students responded to the survey. Only 78 students did not travel outside North Carolina. Which expression can be used to represent the number of students who did not travel outside of North Carolina?

A  $(7 \times \frac{1}{10}) + (8 \times \frac{1}{100})$

**C  $0.07 + 0.008$**

B  $(7 \times \frac{1}{1,000}) + (8 \times \frac{1}{1,000})$

D seventy-eight hundredths

$$\frac{78}{1000} = .078$$

16. What is the closest whole number to 17.48?

A 10

**B 17**

C 18

D 20

