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EDUCATION

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Grade 5 Mathematics

Sample Test Items

1. Which expression is equivalent to 15?

Ⓐ 6×9

Ⓑ $2 \times (6 + 3)$

Ⓒ $7 + (32 \div 4)$

Ⓓ $(4 + 2 \times 3) - 3$

2. Select the box in each row that matches the written form to its expression.

	$(12 - 10) + 2$	$12 \times (2 + 10)$	$12 \times 2 - 10$
Multiply 12 and 2, then subtract 10.	○	○	○
Subtract 12 and 10, then add 2.	○	○	○
Add 2 and 10, then multiply by 12.	○	○	○

3. Mr. Wells wrote two patterns on the board.

- Pattern A: The first term has a value of 3, and the next terms increase by 3 each time.
- Pattern B: The first term has a value of 27, and the next terms decrease by 3 each time.

What is the value of the first term that both Pattern A and Pattern B have in common?

Write the answer in the box.

4. Which statement correctly compares the digit 5 in the numbers 89.059 and 78.365?

Ⓐ The 5 in 89.059 is $\frac{1}{100}$ the value of the 5 in 78.365.

Ⓑ The 5 in 89.059 is $\frac{1}{10}$ the value of the 5 in 78.365.

Ⓒ The 5 in 89.059 is 10 times the value of the 5 in 78.365.

Ⓓ The 5 in 89.059 is 100 times the value of the 5 in 78.365.

5. What is the product of 3.7×10^4?

Ⓐ 370

Ⓑ 3,700

Ⓒ 37,000

Ⓓ 370,000

6. What is 1.453 rounded to the nearest hundredth?

Ⓐ 1.4

Ⓑ 1.45

Ⓒ 1.46

Ⓓ 1.5

7. What is the product of $271 \times 1{,}345$?

Ⓐ 13,450

Ⓑ 37,660

Ⓒ 232,195

Ⓓ 364,495

8. Jose, Darren, Diana, and Camila solved the problem $1{,}050 \div 25$. Their work is shown.

Jose's Work

	50	2
25	1,000	50

Darren's Work

	4	2
20	80	40
50	20	20

Diana's Work

25	1,050	
	500	20
	550	
	500	20
	50	
	50	2
	0	

Camila's Work

25	1,050	
	−1,000	5
	50	
	−50	2
	0	

Which person correctly solved the problem?

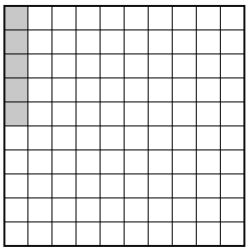
Ⓐ Jose

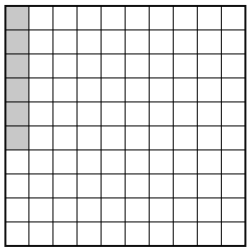
Ⓑ Darren

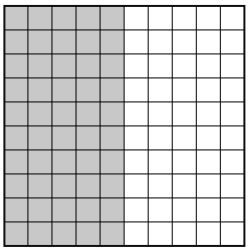
Ⓒ Diana

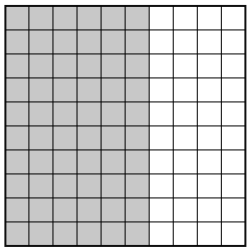
Ⓓ Camila

9. Which model represents the product of 0.2×0.3?

Ⓐ 

Ⓑ 

Ⓒ 

Ⓓ 

10. Shelley had a 6-foot-long rope. She cut $2\frac{5}{12}$ feet from the rope. How much rope does she have left?

Ⓐ $3\frac{5}{12}$ ft.

Ⓑ $3\frac{7}{12}$ ft.

Ⓒ $4\frac{5}{12}$ ft.

Ⓓ $4\frac{7}{12}$ ft.

11. Jamie and four friends share 2 quarts of apple cider equally. Which equation represents the amount of cider that each person receives?

Ⓐ $2 \div 5 = \frac{2}{5}$

Ⓑ $2 \div 4 = \frac{1}{2}$

Ⓒ $4 \div 2 = 2$

Ⓓ $5 \div 2 = 2\frac{1}{2}$

12. Which expressions are equivalent to $\frac{3}{4} \times 8$?

Select **<u>two</u>** answer choices.

Ⓐ $\frac{24}{32}$

Ⓑ $\frac{24}{4}$

Ⓒ $(3 \times 8) \div 4$

Ⓓ $(3 \times 8) + (4 \times 8)$

Ⓔ $(3 \times 8) \div (4 \times 8)$

13. Sam has $\frac{1}{2}$ acre for a garden. If $\frac{1}{3}$ of the garden is used for corn, what fraction of an acre is planted with corn?

Ⓐ $\frac{1}{6}$

Ⓑ $\frac{2}{6}$

Ⓒ $\frac{3}{6}$

Ⓓ $\frac{4}{6}$

14. The following question has two parts. First, answer Part A. Then, answer Part B.

An aquarium has a table displaying the average total length, in meters, of four whales.

Whale	Length (m)
Blue Whale	24
North Pacific Right Whale	15.5
Southern Right Whale	15.25
Fin Whale	19.5

Part A

What is the difference, in centimeters, between the whale with the longest length and the whale with the shortest length?

Write the answer in the box.

☐ centimeters

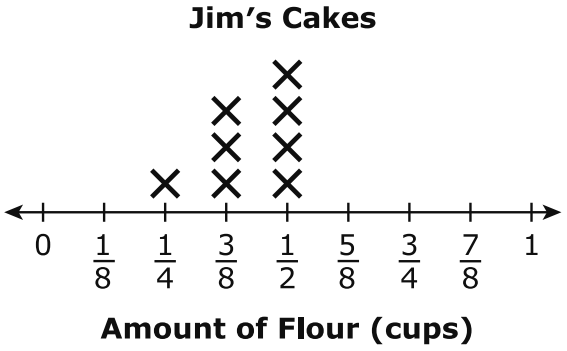
Part B

What is the total length, in centimeters, of the four whales?

Write the answer in the box.

☐ centimeters

15. Jim owns a bakery. The line plot shows the amount of flour he uses to make 8 different cakes.



Jim has 2 cups of flour. How much more flour does Jim need to make all 8 cakes?

Ⓐ $1\frac{3}{8}$ cups

Ⓑ $3\frac{3}{8}$ cups

Ⓒ $5\frac{3}{8}$ cups

Ⓓ $9\frac{3}{8}$ cups

16. A rectangular prism is packed without gaps or overlaps using 25 unit cubes. What is the volume of the rectangular prism?

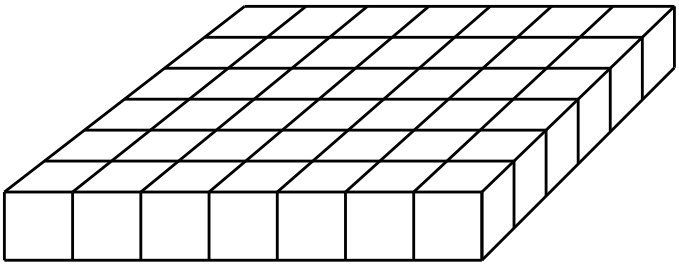
Ⓐ 25 cubic units

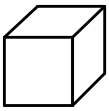
Ⓑ 75 cubic units

Ⓒ 150 cubic units

Ⓓ 625 cubic units

17. Rowan filled a gift box with unit cubes. He filled the bottom of the box with 7 unit cubes without any gaps. He stacked cubes in 6 layers total. Then he laid the box on its side.



 = 1 cubic unit

What is the volume of the box?

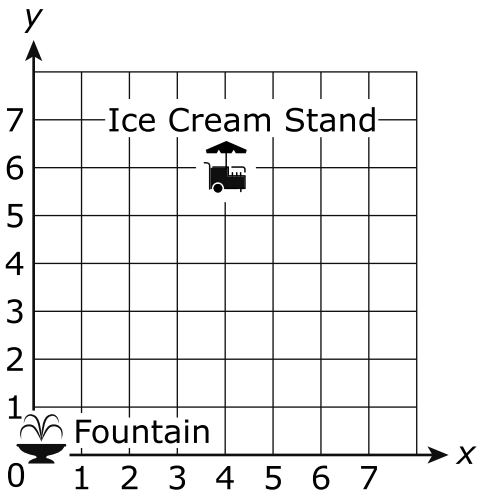
Ⓐ 14 cubic units

Ⓑ 24 cubic units

Ⓒ 36 cubic units

Ⓓ 42 cubic units

18. The mall manager has added an ice cream stand near the fountain.



Which statement describes the distance traveled from the fountain to the ice cream stand?

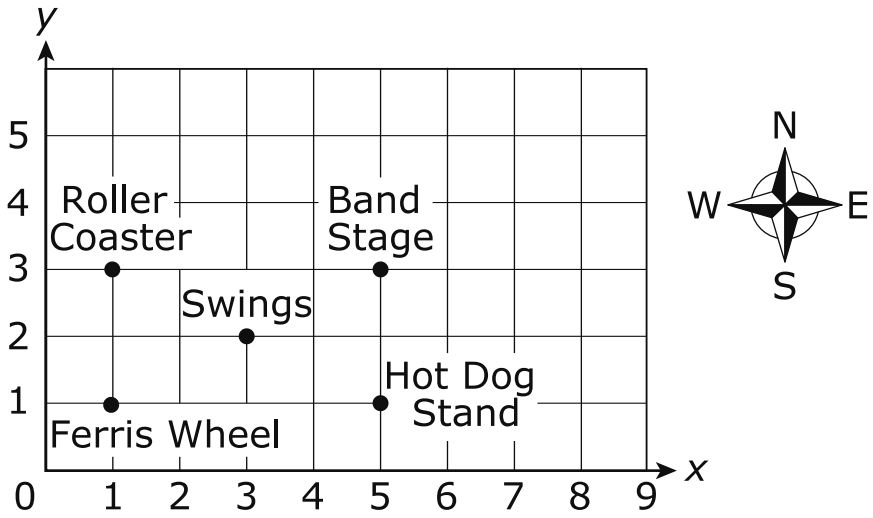
Ⓐ 4 units to the left and 6 units down

Ⓑ 4 units to the right and 6 units up

Ⓒ 5 units to the right and 7 units up

Ⓓ 6 units to the left and 4 units up

19. A map of an amusement park is shown.



Ben is located at the swings. He leaves the swings and travels 2 blocks west and 1 block south. What is Ben's new location?

Ⓐ Band Stage

Ⓑ Ferris Wheel

Ⓒ Roller Coaster

Ⓓ Hot Dog Stand

20. A student says that a square is always a rectangle. Is the student correct?

Ⓐ No, because a square has 4 equal sides.

Ⓑ No, because a square only has 1 set of parallel sides.

Ⓒ Yes, because a square has 4 right angles and 2 sets of parallel sides.

Ⓓ Yes, because a square has 2 obtuse angles and 1 set of parallel sides.

Grade 5 Math Sample Test Items
Paper-Pencil Answer Key Document

Sequence	Key	Standard	Possible Points
1	C	5.OA.1	1
2	3,4,8	5.OA.2	1
3	15	5.OA.3	1
4	C	5.NBT.1	1
5	C	5.NBT.2	1
6	B	5.NBT.4	1
7	D	5.NBT.5	1
8	C	5.NBT.6	1
9	B	5.NBT.7	1
10	B	5.NF.1	1
11	A	5.NF.3	1
12	B,C	5.NF.4	1
13	A	5.NF.6	1
14	875, 7,425	5.MD.1	2
15	A	5.MD.2	1
16	A	5.MD.3	1
17	D	5.MD.5	1
18	B	5.G.1	1
19	B	5.G.2	1
20	C	5.G.3	1