

# 5th Grade Indiana State Practice Math Test

**Indiana Practice Test Grade 5** 

Grade 5

# Questions

Name:	Class:
Date:	Score:

The table below lists the prices of some of the top selling fruits at the grocery store.

ltem	Size	Price
Bananas	1 bunch	\$0.72
Blueberries	10 oz container	\$3.99
Strawberries	16 oz container	\$4.89
Avocado	1 avocado	\$1.29
Watermelon	1 watermelon	\$9.87
Oranges	4 lb bag	\$5.75

1 How much would it cost to buy 2 watermelons and 3 bunches of bananas?

Answer Answer		

- 2 What fraction of a meter is 20 centimeters?
  - A.  $\frac{1}{5}$
  - B.  $\frac{1}{20}$
  - C.  $\frac{1}{50}$
  - D.  $\frac{1}{100}$

A certain fraction is greater than 0 and less than 1. When that fraction is multiplied by 3, which point(s) on the number line could be the answer? Select all the correct answers.



- A. Point U
- B. Point V
- C. Point W
- D. Point X
- E. Point Y

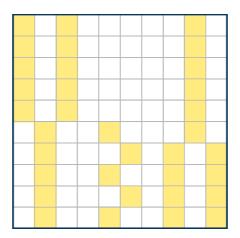
4 Camilla found the product of 327 and 43. Her work is shown below. Her teacher was unable to read one of the numbers in her work.

			1	2	
			3	2	7
		×		4	3
			<sup>1</sup> 9	8	1
+	1	<sup>1</sup> 3,		8	0
	1	4,	0	6	1

- What number belongs in the box where the number the teacher can't read is?
  - A. 0
  - B. 1
  - C. 2
  - D. 3

#### Indiana State Practice Math Test | Grade 5 | Questions

5 A model of 100 blocks is given.



What percent of the blocks are shaded?

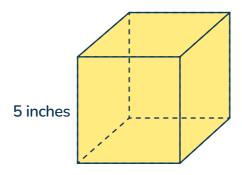


Noah built a new garden bed in his backyard. He needs to fill it with  $10\frac{1}{4}$  cubic yards of soil. He has already poured in  $7\frac{5}{12}$  cubic yards of soil. How much more soil does he need to pour in to fill the garden bed? Answer in lowest terms.

Write your answer in the box.



7 Which expression represents the volume, in cubic inches, of this cube?

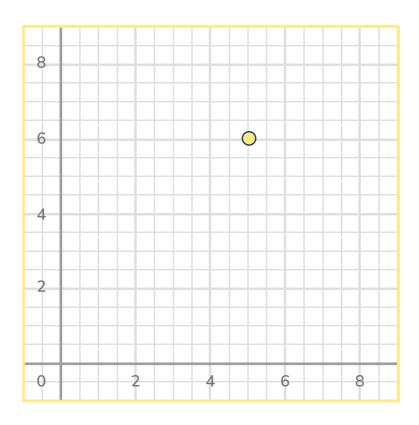


$$A.5 \times 6$$

$$C.6 \times (5 + 5 + 5 + 5)$$

D. 
$$5 + 5 + 5 + 5 + 5 + 5$$

8



What are the coordinates of the point shown?

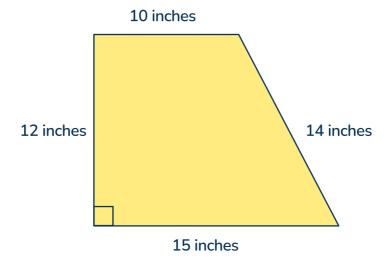
- A. (6, 5)
- B. (6, 6)
- C. (5, 5)
- D. (5, 6)
- Harley has been measuring a plant for a science project. The flower has grown  $\frac{1}{3}$  of an inch each week and has grown a total of 2 inches taller. How many weeks has Harley been measuring this flower?
  - A. 6 weeks
  - B.  $\frac{1}{6}$  of a week
  - C. 2 weeks
  - D. 5 weeks

Yeva and her 3 friends go out to eat at a restaurant. At the end of the meal, the total bill is \$72.36. They decide to split the bill equally. How much will each friend pay?

Write your answer in the box.



11 Find the area of the given trapezoid.





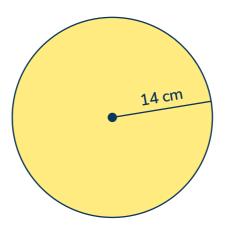
12 The table below shows the time it took four runners to complete a mile.

Runner	Time (minutes)
1	6.42
2	7.114
3	7.24
4	6.4

Which comparison of these times is NOT correct?

- A. 6.4 < 6.42
- B. 7.4 > 7.14
- C. 6.4 < 7.114
- D. 7.114 > 7.24

13 A circle is given.

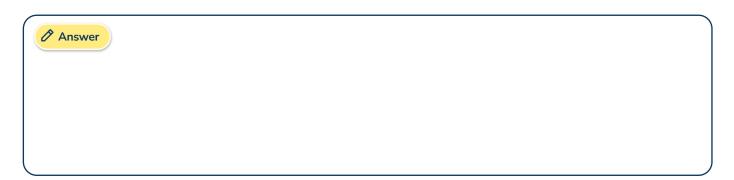


What is the diameter, in centimeters, of the circle?

Write your answer in the box.



14 Four chocolate bars are shared equally between 5 people. What fraction of the chocolate bar will each person get?



The student council conducted a canned food drive as a community service project. The number of cans collected by each class is recorded below.

16 39 52 44 51 74 49 61 44

Find the mean, median and mode for each data set.

Mean	Median		Mode

16 What is the correct way to write 702.203 in expanded form?

A. 
$$7 \times 100 + 2 \times 1 + 2 \times (\frac{1}{10}) + 3 \times (\frac{1}{1,000})$$

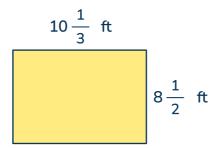
B. 
$$7 \times 100 + 2 \times 1 + 2 \times (\frac{1}{100}) + 3 \times (\frac{1}{1,000})$$

C. 
$$7 \times 100 + 2 \times 10 + 2 \times 1 + 3 \times (\frac{1}{100})$$

D. 
$$7 \times (\frac{1}{100}) + 2 \times (\frac{1}{1}) + 2 \times (\frac{1}{10}) + 3 \times (\frac{1}{100})$$

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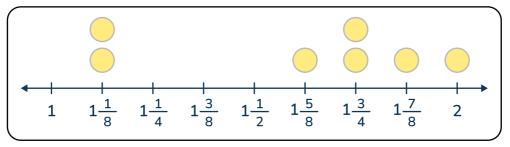
Muhammad is getting a new carpet installed in his bedroom. The diagram below shows the dimensions of his bedroom floor. If the carpet covers the entire floor, what is the area of the carpet?



Write your answer in the box.



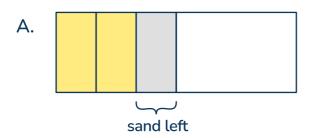
The line plot below shows the heights of Jamal's plants in inches. What is the total height, in inches, of the 3 shortest plants?

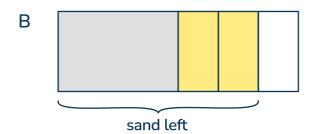


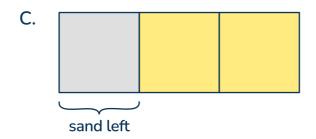


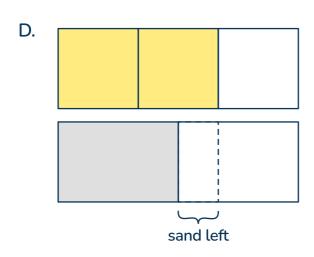
Viola was completing a history project. She had  $\frac{1}{2}$  of a pound of sand. She uses  $\frac{2}{3}$  of the sand. To find how much of a pound of sand she has left, Viola draws a model that represents 1 pound of sand.

Choose the model that shows the correct way Viola should solve this problem.

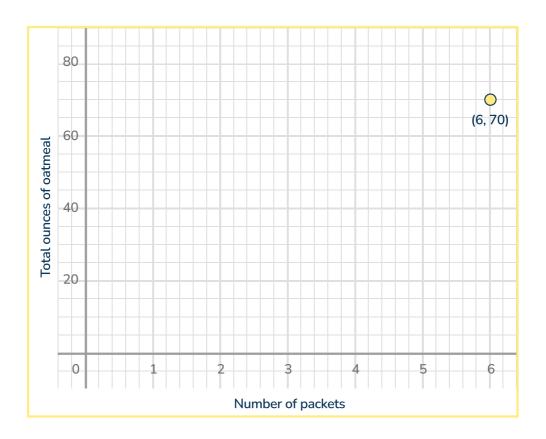








The graph shows the total number of ounces in any number of packets of oatmeal.



Which statement correctly explains the meaning of (6, 70) on the graph?

- A. Each packet of oatmeal is 20 ounces.
- B. 6 packets of oatmeal weigh 70 ounces.
- C. 70 packets of oatmeal have 6 total ounces.
- D. There are 72 ounces in 6 packets of oatmeal.

Jared's orchard has 714 apples ready to sell. The apples will be put in boxes of 23 and sold for \$7.50 per box. How many full boxes of apples can Jared make?

Write your answer in the box.



- Jayson volunteers at a zoo. He helps feed the animals based on the following rules.
  - A lion eats  $\frac{2}{3}$  the amount of food as a tiger.
  - A cheetah eats  $\frac{3}{2}$  the amount of food as a tiger.

Based on the information above, which statement is true?

- A. A cheetah and a lion eat the same amount of food.
- B. A lion eats more than a tiger.
- C. A cheetah eats less than a lion.
- D. A lion eats less than a cheetah.

#### Indiana State Practice Math Test | Grade 5 | Questions

Miranda spent  $2\frac{3}{4}$  hours practicing the drums. How many minutes did Miranda spend practicing the drums?

Write your answer in the box.

Answer			

24 Which equation equals 0.5?

A. 
$$50 \times 10^2 = ?$$

B. 
$$500 \times 10^3 = ?$$

C. 
$$50 \div 10^2 = ?$$

D. 
$$5,000 \div 10^3 = ?$$

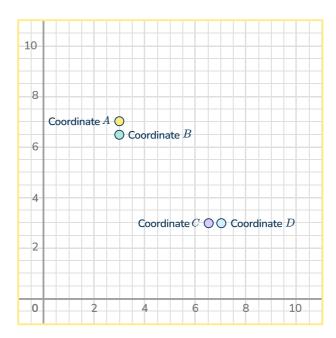
#### Indiana State Practice Math Test | Grade 5 | Questions

A fruit salad recipe requires  $1\frac{3}{4}$  cups of blueberries. How many cups of blueberries would be needed to make  $5\frac{1}{2}$  fruit salad recipes?

Write your answer in the box.

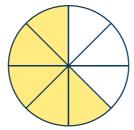
Answer Answer		

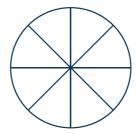
26 Which point shows (3, 7)?



- A. Coordinate A
- B. Coordinate B
- C. Coordinate C
- D. Coordinate D

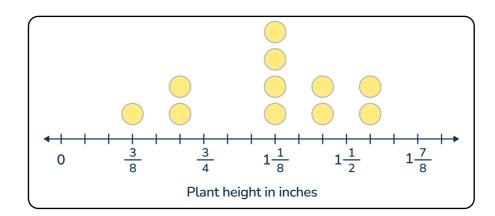
Blake and her sister ordered two pizzas for dinner. The shaded part of the circle represents the portion of the pizza Blake's sister ate. Blake ate  $\frac{1}{4}$  more than her sister. How much of the pizza did Blake eat?







A class is growing plants for a science experiment. Below is the height of the plants after one week.



What is the difference between the shortest and tallest plants?

Write your answer in the box.



Yan has  $\frac{1}{4}$  of a cup of fish food. He uses it to feed 3 fish equally. How much food does each fish get?

A. 
$$\frac{1}{4} \times 3$$

B. 
$$3 \times \frac{1}{12}$$

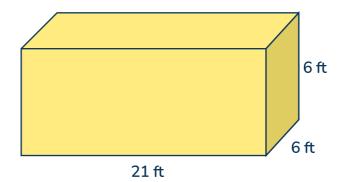
C. 
$$\frac{1}{4} \div 3$$

D. 
$$3 \div \frac{1}{4}$$

E. 
$$\frac{1}{12} - \frac{1}{4}$$

- 30 Complete the statement: 600 is \_\_\_\_ times the size of 60,000.
  - A. 100
  - B  $\frac{1}{10}$
  - C. 10
  - D.  $\frac{1}{100}$

31 What is the volume of the rectangular prism?



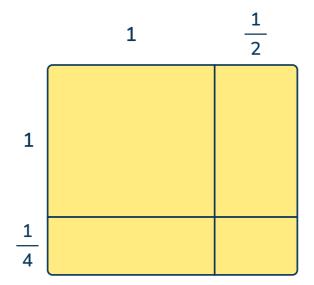
Answer		

32 How many centimeters are in 0.7 meters?

Write your answer in the box.

Answer Answer			

Diego is solving  $1\frac{1}{2} \times 1\frac{1}{4}$ . He draws the model below.



Which expression represents Diego's area model?

A. 
$$2 + 1 + 1 + \frac{1}{2}$$

B. 
$$1 + 1 + 1 + 1$$

$$C. \frac{8}{15} + \frac{4}{15} + \frac{2}{15} + \frac{1}{15}$$

D. 
$$1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8}$$

# Answer Key - Multiple Choice

Item number	Correct answer	Standard(s)	DOK	Level of Priority
1	\$21.90	5.CA.10	DOK 2	Essential
2	А	5.M.1	DOK 1	Essential
3	B, C, D	5.CA.5	DOK 3	Essential
4	А	5.CA.2	DOK 2	Essential
5	34%	5.NS.4	DOK 1	Standard
6	2 5/6 cubic yards	5.CA.3	DOK 2	Essential
7	В	5.M.4, 5.M.5	DOK 1	Essential
8	D	5.CA.11	DOK 1	Essential
9	А	5.CA.8	DOK 2	Standard
10	\$18.09	5.CA.10	DOK 2	Essential
11	150 in²	5.M.3	DOK 2	Essential
12	D	5.NS.1	DOK 2	Standard
13	28 cm	5.G.1	DOK 1	Essential
14	4 5	5.CA.4	DOK 2	Standard
15	Mean: 47.78 Median: 49 Mode: 44	5.DA.2	DOK 2	Essential
16	А	5.NS.1	DOK 1	Essential
17	$87\frac{5}{6}$ square feet	5.M.2	DOK 2	Standard

#### Indiana State Practice Math Test | Grade 3 | Answers

Item number	Correct answer	Standard(s)	DOK	Level of Priority
18	$3\frac{7}{8}$ inches	5.DA.1	DOK 2	Standard
19	А	5.CA.7	DOK 2	Standard
20	В	5.CA.11	DOK 2	Essential
21	31 boxes	5.CA.1	DOK 2	Essential
22	D	5.CA.7	DOK 3	Standard
23	165 minutes	5.M.1	DOK 2	Standard
24	С	5.NS.3	DOK 1	Essential
25	9 5/8 cups	5.CA.7	DOK 2	Essential
26	А	5.CA.11	DOK 1	Essential
27	7 8	5.CA.4	DOK 2	Essential
28	$1\frac{1}{4}$ inches	5.DA.1	DOK 2	Essential
29	С	5.CA.8	DOK 2	Essential
30	D	5.NS.3	DOK 1	Standard
31	756 cubic feet	5.M.5	DOK 1	Essential
32	70 centimeters	5.M.1	DOK 1	Essential
33	D	5.CA.5	DOK 2	Essential

# ANSWERS SORTED BY REPORTING CATEGORY

Number Sense					
Item number	Correct answer	Standard(s)	DOK		
5	34%	5.NS.4	DOK 1		
12	D	5.NS.1	DOK 2		
16	А	5.NS.1	DOK 1		
24	С	5.NS.3	DOK 1		
30	D	5.NS.3	DOK 1		

## Indiana State Practice Math Test | Grade 3 | Rationale

Computation and Algebraic Thinking					
ltem number	Correct answer	Standard(s)	DOK		
1	\$21.90	5.CA.10	DOK 2		
3	B, C, D	5.CA.5	DOK 3		
4	А	5.CA.2	DOK 2		
6	$2\frac{5}{6}$ cubic yards	5.CA.3	DOK 2		
8	D	5.CA.11	DOK 1		
9	А	5.CA.8	DOK 2		
10	\$18.09	5.CA.10	DOK 2		
14	4 5	5.CA.4	DOK 2		
19	А	5.CA.7	DOK 2		
20	В	5.CA.11	DOK 2		
21	31 boxes	5.CA.1	DOK 2		
22	D	5.CA.7	DOK 3		
25	9 5/8 cups	5.CA.7	DOK 2		
26	А	5.CA.11	DOK 1		
27	7 8	5.CA.4	DOK 2		
29	С	5.CA.8	DOK 2		
33	D	5.CA.5	DOK 2		

## Indiana State Practice Math Test | Grade 3 | Rationale

Geometry, Measurement and Data Analysis					
ltem number	Correct answer	Standard(s)	DOK		
2	А	5.M.1	DOK 1		
7	В	5.M.4, 5.M.5	DOK 1		
11	150 in <sup>2</sup>	5.M.3	DOK 2		
13	28 cm	5.G.1	DOK 1		
15	Mean: 47.78 Median: 49 Mode: 44	5.DA.2	DOK 2		
17	87 5/6 square feet	5.M.2	DOK 2		
18	$3\frac{7}{8}$ inches	5.DA.1	DOK 2		
23	165 minutes	5.M.1	DOK 2		
28	$1\frac{1}{4}$ inches	5.DA.1	DOK 2		
31	756 cubic feet	5.M.5	DOK 1		
32	70 centimeters	5.M.1	DOK 1		

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