



# **Grade 7 Mathematics**

## ***Practice Test***

**Read each question or problem carefully. Then, answer the question or work the problem. Be sure to mark your response in this test book.**

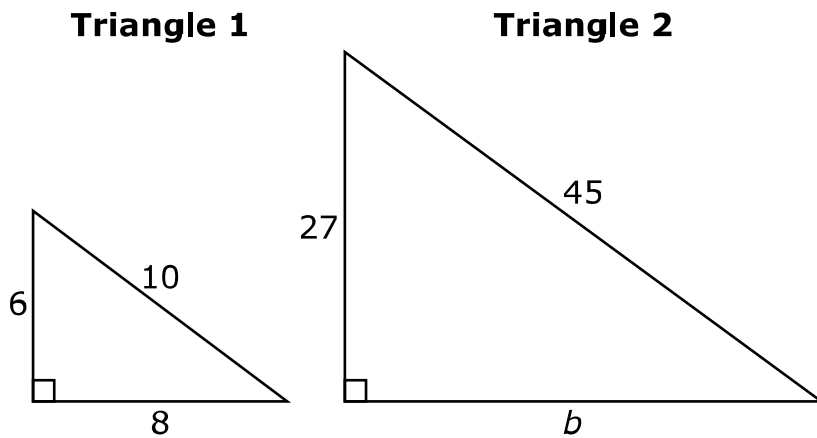
1. Joe's mom gave him \$40 for cutting their grass. He used the money to buy a \$10.75 game and two snacks that cost \$3.25 each. Joe also bought a bouquet of flowers for his mom.

If Joe went home with  $\frac{1}{4}$  of the money his mom gave him, how much did the flowers cost?

- Ⓐ \$10.00
- Ⓑ \$12.75
- Ⓒ \$16.00
- Ⓓ \$17.25

- 2.** Aiden and his two friends ordered a pizza with 12 slices. Together they ate  $\frac{2}{3}$  of the pizza. If they evenly divided what was left, how many slices would each of them receive?
- Ⓐ  $\frac{1}{3}$  slice
  - Ⓑ  $1\frac{1}{3}$  slices
  - Ⓒ 4 slices
  - Ⓓ 8 slices
- 3.** Kate conducts a survey at her middle school to determine the students' favorite sport. Which sampling method would **best** produce a representative sample of the population?
- Ⓐ Kate surveys the football team.
  - Ⓑ Kate surveys seventh grade students.
  - Ⓒ Kate surveys every fourth student entering the school.
  - Ⓓ Kate surveys every eighth student from a roster of the choir members.

4. Triangle 2 is a scale drawing of Triangle 1.



Based on the information in the diagram, what is the length of side  $b$ ?

- Ⓐ 4.5
- Ⓑ 12.5
- Ⓒ 36.0
- Ⓓ 45.0

5. Which expressions are equivalent to  $\frac{1}{3} - \frac{2}{5}$ ?

Select **two** answer choices.

Ⓐ  $\frac{1}{3} + \left(-\frac{2}{5}\right)$

Ⓑ  $\frac{2}{5} + \left(-\frac{1}{3}\right)$

Ⓒ  $\left|\frac{1}{3}\right| - \left|\frac{2}{5}\right|$

Ⓓ  $\left|\frac{1}{3} + \frac{2}{5}\right|$

Ⓔ  $\left|\frac{2}{5}\right| - \left|\frac{1}{3}\right|$

6. The graph shows how many calories are in a store's best-selling candy.



Based on the graph, how many calories are in 1 piece of candy?

- Ⓐ  $\frac{1}{20}$
- Ⓑ  $\frac{1}{15}$
- Ⓒ 15
- Ⓓ 60

7. Campbell's paycheck was \$257.20. She put  $\frac{1}{4}$  of her paycheck into a savings account and used  $\frac{1}{3}$  of what was left to pay bills.

How much money does she have remaining from her paycheck?

Write the answer in the box.

\$

8. A company manufactures cell phones. In August, a random sample of 125 cell phones were inspected, and 3 phones were found to be defective. The company manufactured 8,000 cell phones in August.

Based on the results from the sample, about how many cell phones are expected to be defective?

- Ⓐ 64 cell phones
- Ⓑ 192 cell phones
- Ⓒ 2,667 cell phones
- Ⓓ 3,360 cell phones

9. Lee mows  $\frac{1}{3}$  of his lawn and uses  $\frac{1}{2}$  of a gallon of gas. What fraction of the lawn can he mow per gallon?

Ⓐ  $\frac{1}{6}$

Ⓑ  $\frac{5}{6}$

Ⓒ  $\frac{2}{3}$

Ⓓ  $\frac{3}{2}$

10. Select a box in each row to identify the equivalent expressions.

	$\frac{4}{3}(x - 1)$	$\frac{1}{3}(4x - 1)$	$-\frac{1}{3}(x + 2)$	$\frac{1}{3}(x + 1)$
$\frac{2}{3}x + \frac{1}{3} - \frac{1}{3}x$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$\frac{4}{3}x - \frac{2}{3} - \frac{2}{3}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$\left(\frac{1}{3}x + \frac{2}{3}\right) + \left(-\frac{2}{3}x - \frac{4}{3}\right)$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$\left(\frac{2}{3}x + \frac{1}{3}\right) + \left(\frac{2}{3}x - \frac{2}{3}\right)$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

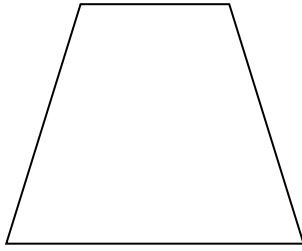


- 11.** Jasmine walked  $\frac{1}{2}$  of a mile to school. After school, she walked  $\frac{1}{3}$  of a mile to her aunt's house. Afterwards, she walked  $\frac{5}{6}$  of a mile home.

If Jasmine walks the same path every day, Monday through Friday, how many miles does she walk in 1 week?

- Ⓐ  $1\frac{2}{3}$  miles
- Ⓑ  $3\frac{5}{11}$  miles
- Ⓒ  $5\frac{5}{6}$  miles
- Ⓓ  $8\frac{1}{3}$  miles

- 12.** Jessie is helping her grandmother plant a garden in the shape of the trapezoid shown.



The garden will have the following dimensions:

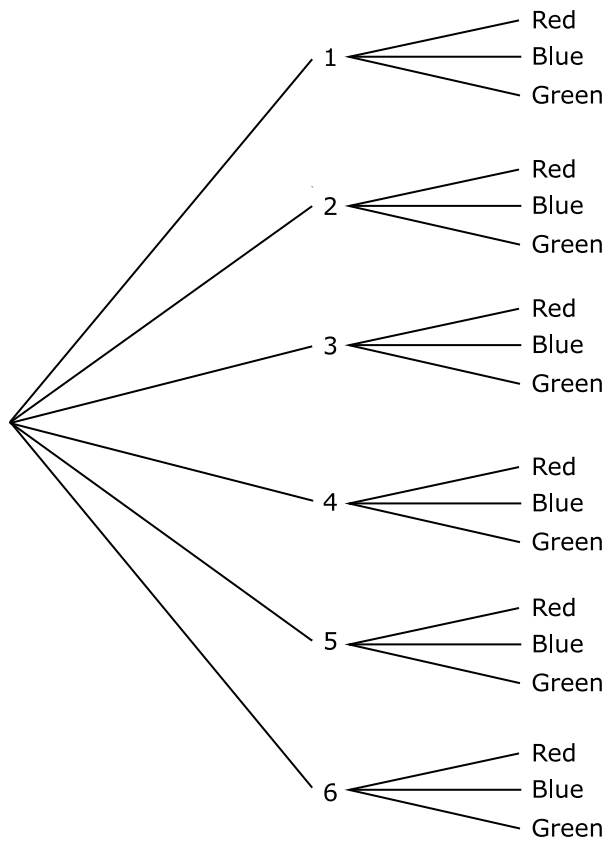
- Base one is 12.5 feet long.
- Base two is 0.5 times the length of base one.
- The height is 10 feet.

What is the area, in square feet, of this garden?

- Ⓐ 28.75 square feet
- Ⓑ 93.75 square feet
- Ⓒ 125.00 square feet
- Ⓓ 187.50 square feet

- 13.** Michael works in an electronics store. The manager tells Michael he wants to take 20% off a \$495.00 television. If the television does not sell, the manager will again reduce the sale price by 25%. Michael tells the manager to reduce the original price by 45% because the sale price would be the same. Is Michael correct?
- Ⓐ No, Michael's method has a greater effect on the sale price.
  - Ⓑ No, the manager's method has a greater effect on the sale price.
  - Ⓒ Yes, the sale price for both the manager's method and Michael's method is \$272.25.
  - Ⓓ Yes, the manager's method and Michael's method both equal a 45% discount off the original price.

- 14.** Jaime rolls a number cube and spins a colored spinner. The spinner is divided into three equal sections. The tree diagram shows all the possible outcomes that can occur.



Which statements are true? Select **two** answer choices.

Ⓐ The probability of Jaime rolling a 5 on the number cube  
and the spinner landing on red is  $\frac{1}{9}$ .

Ⓑ The probability of Jaime rolling a 3 on the number cube  
and the spinner landing on blue is  $\frac{1}{6}$ .

Ⓒ The probability of Jaime rolling a 2 or 3 on the number  
cube and the spinner landing on green is  $\frac{1}{18}$ .

Ⓓ The probability of Jaime rolling a 1 on the number cube  
and the spinner landing on blue or green is  $\frac{1}{9}$ .

Ⓔ The probability of Jaime rolling an even number on the  
number cube and the spinner landing on blue is  $\frac{1}{6}$ .

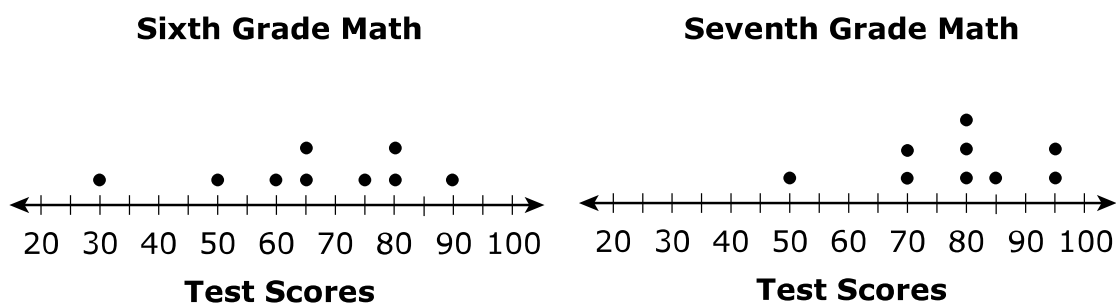
15. What is the circumference of a circle with a radius of 4 inches?  
Use 3.14 for  $\pi$ .

Write the answer in the box.

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 inches

16. The dot plots show the math test scores from the sixth and seventh grade students.



Based on the dot plots, which statement correctly compares the two data sets?

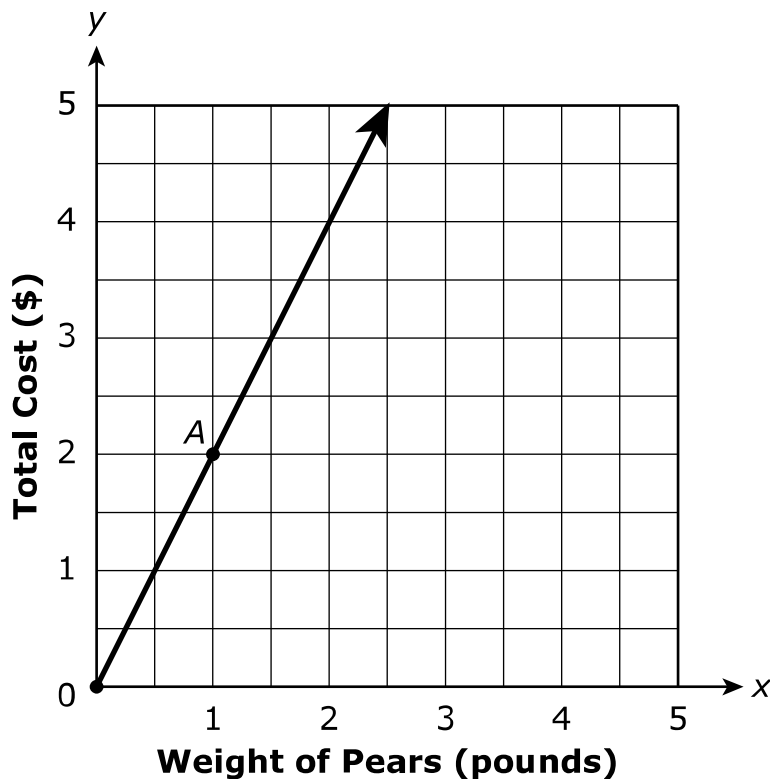
- (A) The range of test scores in sixth grade is less than the range of test scores in seventh grade, and the mean test score in sixth grade is less than the mean test score in seventh grade.
- (B) The range of test scores in sixth grade is less than the range of test scores in seventh grade, and the mean test score in sixth grade is greater than the mean test score in seventh grade.
- (C) The range of test scores in sixth grade is greater than the range of test scores in seventh grade, and the mean test score in sixth grade is less than the mean test score in seventh grade.
- (D) The range of test scores in sixth grade is greater than the range of test scores in seventh grade, and the mean test score in sixth grade is greater than the mean test score in seventh grade.

- 17.** Mrs. Kimble earns \$125 per week working at a furniture store. For each piece of furniture she sells, Mrs. Kimble earns an additional \$5. This week, she wants to earn more than \$500.

If  $c$  is the number of pieces of furniture Mrs. Kimble sells, which inequality represents this situation, and what quantities are true for  $c$ ?

- Ⓐ  $5c + 125 > 500$ , where  $c > 75$
- Ⓑ  $5c + 125 < 500$ , where  $c < 75$
- Ⓒ  $125c + 5 > 500$ , where  $c > 4$
- Ⓓ  $125c + 5 < 500$ , where  $c < 4$

18. The graph shows the relationship between the weight of pears and the total cost of the pears.



What does point *A* on the graph represent?

- Ⓐ The cost of 1 pear is \$2.00.
- Ⓑ The cost of 4 pears is \$2.00.
- Ⓒ The cost of 1 pound of pears is \$2.00.
- Ⓓ The cost of 4 pounds of pears is \$2.00.

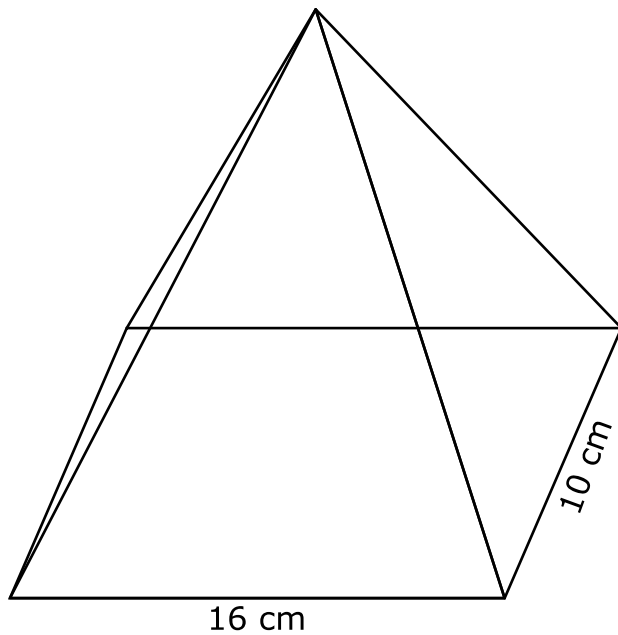


- 19.** A store marks up the merchandise it receives from the manufacturer by 25%. Which expressions can be used to determine the price the store charges when the manufacturer charges  $m$  dollars?

Select **two** answer choices.

- Ⓐ  $0.25m$
- Ⓑ  $1.25m$
- Ⓒ  $m + 0.25$
- Ⓓ  $m + 0.25m$
- Ⓔ  $1.25m + m$

- 20.** A right rectangular pyramid is shown.



What two-dimensional figure results from vertically slicing the pyramid from its apex to its base?

- Ⓐ square
- Ⓑ triangle
- Ⓒ rectangle
- Ⓓ trapezoid

- 21.** Ryan completed  $\frac{1}{8}$  of his test in  $\frac{2}{5}$  of an hour. If Ryan's rate stayed the same, how much of his test was finished in 1 hour?

Ⓐ  $\frac{1}{20}$

Ⓑ  $\frac{5}{16}$

Ⓒ  $\frac{1}{3}$

Ⓓ  $\frac{3}{5}$

- 22.** What is the value of the expression  $\frac{1}{2}(x + 60)$  for each value of  $x$ ?

Select a box in each row to correctly match the values.

	-10	10	50	80
$x = 40$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$x = -80$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$x = 100$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$x = -40$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 23.** Dave completed a random sample of fish from two ponds. The results are shown.

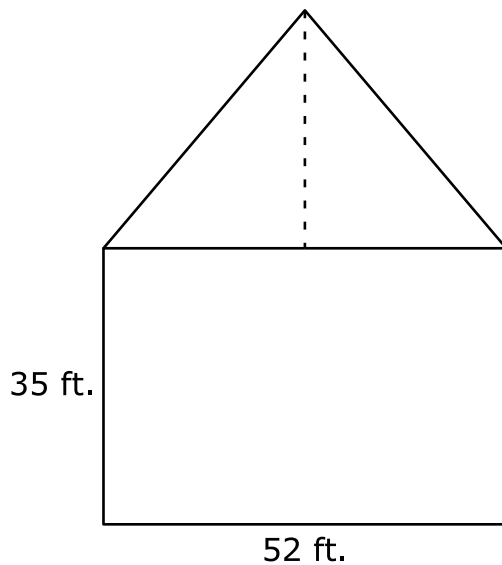
**Length of Fish**

<b>Pond A (inches)</b>	<b>Pond B (inches)</b>
20	12
6	10
15	22
5	14
10	11
11	11
12	12
9	11
5	12
17	19

Based on the samples, which statement **best** compares the lengths of the fish in each pond?

- Ⓐ The fish in Pond A are generally longer and have less variability in length than the fish in Pond B.
- Ⓑ The fish in Pond A are generally longer and have greater variability in length than the fish in Pond B.
- Ⓒ The fish in Pond A are generally shorter and have less variability in length than the fish in Pond B.
- Ⓓ The fish in Pond A are generally shorter and have greater variability in length than the fish in Pond B.

- 24.** Mr. Thomas owns a rectangular property that is 52 feet long and 35 feet wide. He adds a new triangular property directly behind his existing property. The base length of the triangular property is equal to the length of the rectangular property. An aerial view of the whole property is shown.



The area of the whole property is 2,600 square feet. Based on the diagram, what is the maximum height, in feet, of the triangular property?

- Ⓐ 15.0 feet
- Ⓑ 22.3 feet
- Ⓒ 30.0 feet
- Ⓓ 44.3 feet

**25.** Which expression is equivalent to  $-2(x + 4) - (3x + 8)$ ?

Ⓐ  $5x + 16$

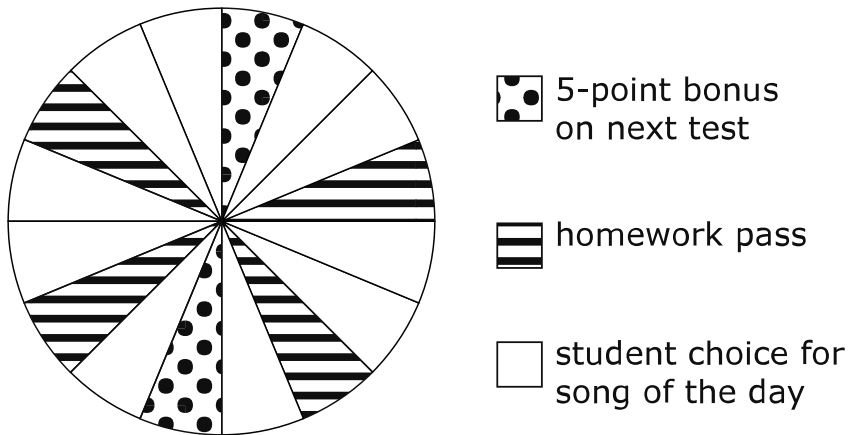
Ⓑ  $5x - 16$

Ⓒ  $-5x + 16$

Ⓓ  $-5x - 16$

- 26.** Ms. Evan allows her students of the week to spin a reward wheel. The reward wheel is shown.

**Ms. Evan's Reward Wheel**



What is the likelihood of landing on the 5-point bonus section?

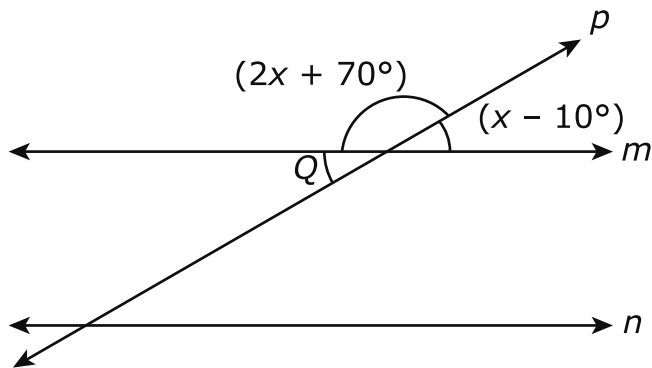
- Ⓐ likely
- Ⓑ certain
- Ⓒ unlikely
- Ⓓ impossible

- 27.** Kelsey opened a savings account 6 years ago that earns 1.2% simple interest every year. She started the account with \$600 and has not touched the account since. How much money is in the account now?

- Ⓐ \$43.20
- Ⓑ \$643.20
- Ⓒ \$4,320.00
- Ⓓ \$4,920.00



- 28.** Line  $m$  and line  $n$  are parallel. They are intersected by line  $p$  as shown.



What is the measure of  $\angle Q$ ?

- Ⓐ  $10^\circ$
- Ⓑ  $30^\circ$
- Ⓒ  $40^\circ$
- Ⓓ  $90^\circ$

- 29.** The following question has two parts. First, answer Part A. Then, answer Part B.

A number cube that has sides numbered 1 through 6 is rolled 180 times.

**Part A**

How many times would you expect the result to be an even number greater than 2?

Write the answer in the box.

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 times

**Part B**

How many times would you expect the result to be a number less than 6?

Write the answer in the box.

--

 times

- 30.** As part of a science experiment, Sam measured the amount of rainfall, in inches, over the course of a week. A table of the measurements Sam collected is shown.

**Daily Rainfall**

<b>Day</b>	<b>Rainfall (inches)</b>
Sunday	0
Monday	$1\frac{1}{3}$
Tuesday	$3\frac{1}{2}$
Wednesday	$\frac{2}{3}$
Thursday	$2\frac{2}{3}$
Friday	$1\frac{1}{2}$
Saturday	0

What was the mean amount of rainfall, in inches, over the course of the week?

- Ⓐ  $1\frac{8}{21}$  inches
- Ⓑ  $1\frac{14}{15}$  inches
- Ⓒ  $9\frac{2}{3}$  inches
- Ⓓ  $13\frac{2}{3}$  inches

- 31.** Angles  $ABC$  and  $CBD$  are supplementary angles. The measure of  $\angle ABC$  can be represented by the expression  $(3x + 14)^\circ$ , and the measure of  $\angle CBD$  can be represented by the expression  $(5x + 6)^\circ$ .

What is the measure, in degrees, of  $\angle ABC$ ?

Ⓐ  $20.00^\circ$

Ⓑ  $40.25^\circ$

Ⓒ  $42.50^\circ$

Ⓓ  $74.00^\circ$

- 32.** Select the box that matches the relationship shown in each table with its corresponding equation.

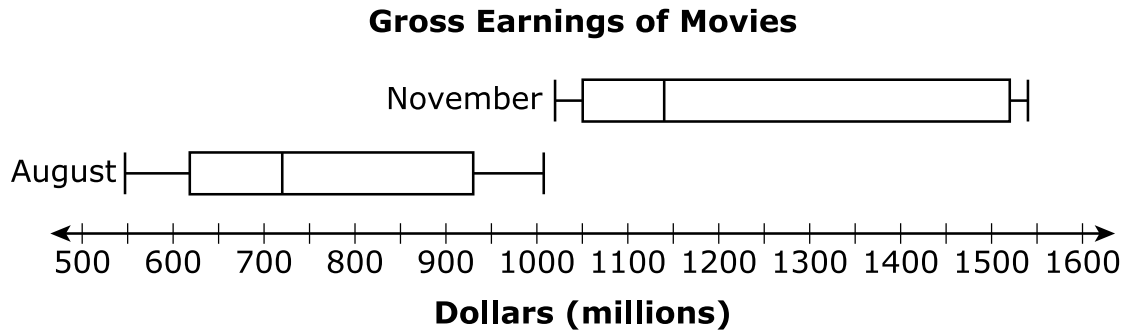
		$y = \frac{1}{2}x$	$y = \frac{1}{3}x$	$y = \frac{3}{2}x$
<b>x</b>	<b>y</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27	9			
18	6			
12	4			
<b>x</b>	<b>y</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	9			
10	5			
6	3			
<b>x</b>	<b>y</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	15			
6	9			
2	3			

- 33.** A cell phone company is giving a 20% discount on all phone accessories. Which expressions can be used to find the sale price of an item with an original price of  $x$  dollars?

Select **two** answer choices.

- Ⓐ  $-20x$
- Ⓑ  $0.2x$
- Ⓒ  $0.8x$
- Ⓓ  $x - 0.2x$
- Ⓔ  $100 - 20x$

- 34.** The box plots compare the gross earnings, in millions of dollars, of movies during the months of August and November.



Which statement correctly compares the two data sets?

- Ⓐ The median in August is about half of the median in November.
- Ⓑ The median in November is about 400 more than the median in August.
- Ⓒ The difference in the medians is about half of the range in November.
- Ⓓ The difference in the medians is about half of the interquartile range in August.

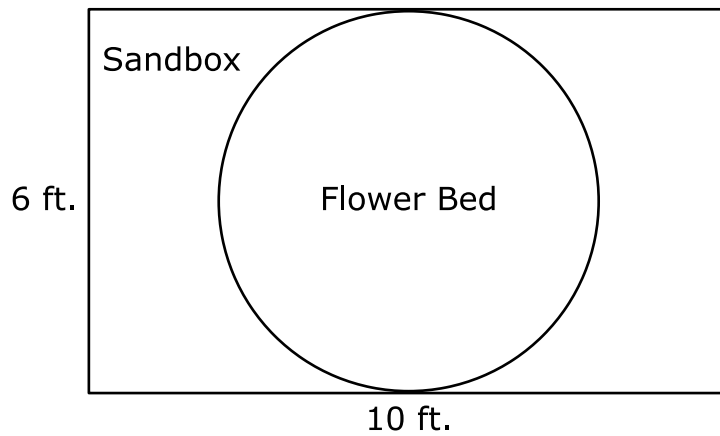
- 35.** Every day of the week, Jordan earns \$4 per hour for delivering newspapers. She also earns a weekly bonus of \$10 if she arrives on time to work each day.

Last week, Jordan arrived on time to work every day and earned a total of \$96 for  $h$  hours of work. Based on this situation, which statement is true?

- Ⓐ Jordan worked a total of 4 hours.
- Ⓑ Jordan worked a total of  $9\frac{1}{4}$  hours.
- Ⓒ Jordan worked a total of 10 hours.
- Ⓓ Jordan worked a total of  $21\frac{1}{2}$  hours.



- 36.** A school's art teacher designs a circular flower bed inside a rectangular sandbox. The sandbox is 6 feet wide and 10 feet long.



How many square feet of sand will there be after the flower bed is installed? Use 3.14 for  $\pi$ . Round the answer to the nearest square foot.

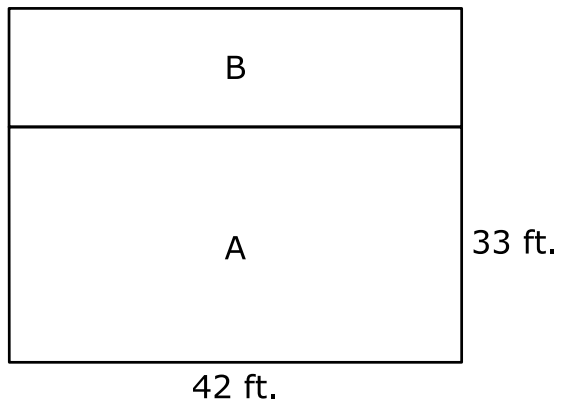
- Ⓐ 22 square feet
- Ⓑ 28 square feet
- Ⓒ 32 square feet
- Ⓓ 41 square feet

**37.** Which event is most likely to occur?

- Ⓐ tossing a fair coin and landing on heads
- Ⓑ spinning a 3 on a spinner divided into 4 equal sections numbered 1 through 4
- Ⓒ picking a red marble from a bag of marbles that contains 3 blue, 4 red, and 2 green marbles
- Ⓓ rolling a number cube that has sides numbered 1 through 6 and landing on a number less than 5

- 38.** Two rectangular properties share a common side. Lot A is 33 feet wide and 42 feet long.

**Lot A and Lot B**



The combined area of the lots is 1,848 square feet. How many feet wide is Lot B?

- Ⓐ 11 feet
- Ⓑ 14 feet
- Ⓒ 44 feet
- Ⓓ 56 feet

**39.** What is the value of the expression  $-2\left(-\frac{7}{9} \div \frac{1}{3}\right)$ ?

Ⓐ  $-4\frac{2}{3}$

Ⓑ  $-2\frac{7}{27}$

Ⓒ  $1\frac{5}{9}$

Ⓓ  $4\frac{2}{3}$

- 40.** Jamie spun a colored spinner 20 times. The results of her spins are shown in the frequency table.

**Colored Spinner  
Frequency Table**

Color	Frequency
Red	<del>    </del>
Orange	
Yellow	
Green	
Blue	
Purple	

Based on the data in the table, how many times should Jamie expect the spinner to land on green if she spun the spinner 400 times?

- Ⓐ 20 times
- Ⓑ 67 times
- Ⓒ 80 times
- Ⓓ 100 times

- 41.** Which conditions will result in the construction of a unique triangle?

Select **two** answer choices.

- Ⓐ angle measures:  $30^\circ$ ,  $60^\circ$ ,  $90^\circ$
- Ⓑ angle measures:  $50^\circ$ ,  $50^\circ$ ,  $80^\circ$
- Ⓒ side lengths: 2 in., 7 in., 8 in.
- Ⓓ side lengths: 5 ft., 6 ft., 12 ft.
- Ⓔ side lengths: 11 cm, 15 cm, 17 cm

- 42.** A random sample of the girls' heights at a basketball camp is shown.

<b>7th Grade Girls' Heights (inches)</b>	69	68	66	61
<b>8th Grade Girls' Heights (inches)</b>	67	63	65	67

Based on the data, select the box that indicates whether each statement is true or false.

	True	False
The mean height of the 7th grade girls is greater than the mean height of the 8th grade girls.	<input type="radio"/>	<input type="radio"/>
The girls in both grades have the same median height.	<input type="radio"/>	<input type="radio"/>
The heights of the 8th grade girls vary more than the heights of the 7th grade girls.	<input type="radio"/>	<input type="radio"/>
The girls in 7th grade tend to be taller than the girls in 8th grade.	<input type="radio"/>	<input type="radio"/>

- 43.** Oliver is trying to keep up with the current amount of money in his bank account. He uses positive numbers to show his deposits and negative numbers to show his withdrawals.

Which expression **best** represents Oliver making 8 withdrawals of 25 dollars?

- Ⓐ  $8(25)$
- Ⓑ  $25 - 8$
- Ⓒ  $8(-25)$
- Ⓓ  $8 + 25$

44. A spinner is spun 20 times, and the number of times the arrow lands on each color is recorded. The table shows the results.

**Colored Spinner  
Frequency Table**

Color	Frequency
Red	
Purple	
Blue	
Green	
Yellow	
Orange	

Based on the results, what is the probability the next spin will be blue or green?

Write the answer in the box as a decimal.

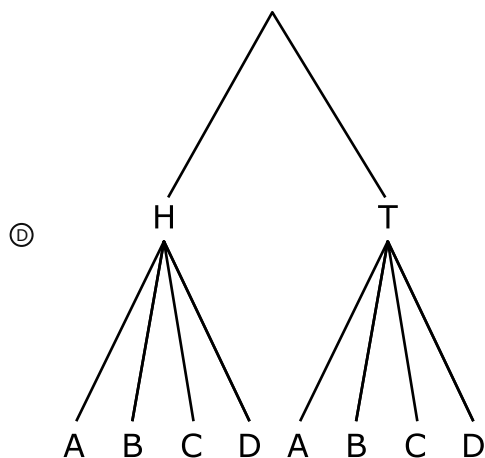
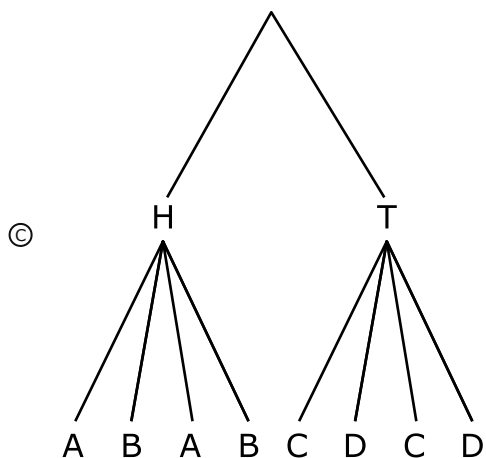
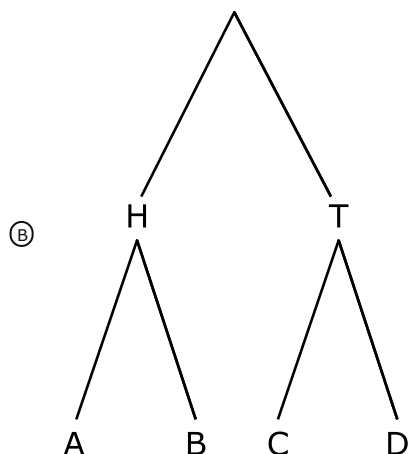
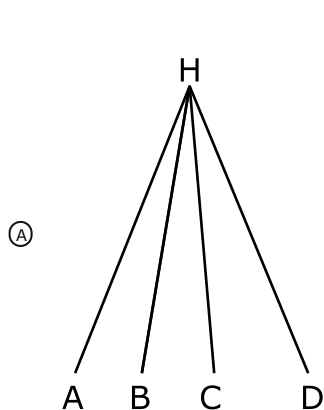
45. Shawn is placing a fence around a circular garden with a 15-foot diameter. How many feet of fencing will Shawn need to buy to enclose the garden? Use 3.14 for  $\pi$ . Round the answer to the nearest foot.

- Ⓐ 47 feet
- Ⓑ 48 feet
- Ⓒ 177 feet
- Ⓓ 707 feet



- 46.** Raul has a fair coin and a spinner divided into four congruent sections labeled A, B, C, and D. Raul will toss the coin once and then spin the spinner.

Which tree diagram shows all the possible outcomes?



- 47.** A stack of cards are numbered from 1 through 50. If a student selects a card, what is the probability that the student will select a card that has both the same number in the ones place and the tens place? Write the answer as a decimal.

Write the answer in the box.

- 48.** Ken earned \$128 from his part-time job this summer. He spent 25% of his money on games. He is going to donate  $\frac{1}{6}$  of the remaining money to charity. How much money will the charity receive?

Ⓐ \$15

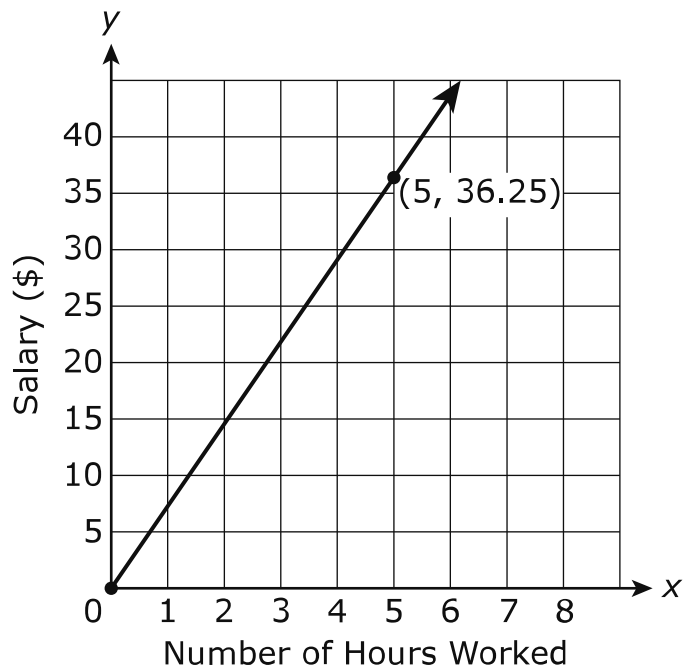
Ⓑ \$16

Ⓒ \$32

Ⓓ \$80

- 49.** Employees at an arcade are paid according to the number of hours worked, as shown in the graph.

**Employee Pay Scale**



Based on the graph, which statements are true?

Select **three** answer choices.

- Ⓐ If employees do not work, they earn \$7.25.
- Ⓑ If employees work for 1 hour, they earn \$7.25.
- Ⓒ If employees work for 4 hours, they earn \$29.00.
- Ⓓ If employees work for 10 hours, they earn \$73.00.
- Ⓔ If employees work for 3.5 hours, they earn \$21.75.
- Ⓕ If employees work for 7.25 hours, they earn \$1.00.
- Ⓖ If employees do not work, they do not earn any money.

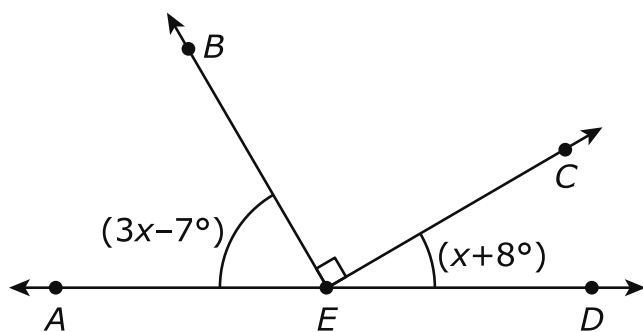
50. Select the box in each row that identifies the equivalent decimal of each fraction.

	$0.6\overline{3}$	0.6	0.625	$0.\overline{6}$
$\frac{42}{63}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$\frac{30}{48}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$\frac{36}{60}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$\frac{57}{90}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

51. A fair number cube, with numbers 1 through 6, was rolled 200 times. The number 5 was rolled 34 times. If the number cube was rolled 300 times, **approximately** how many times would the number 5 be rolled?

- Ⓐ 9 times
- Ⓑ 15 times
- Ⓒ 51 times
- Ⓓ 134 times

52. A diagram is shown.



What is the measure of  $\angle CED$ ?

- Ⓐ  $22.25^\circ$
- Ⓑ  $26.75^\circ$
- Ⓒ  $30.25^\circ$
- Ⓓ  $34.25^\circ$

- 53.** Chris works at a bookstore and earns \$7.50 per  $h$  hour plus a \$2 bonus for each book she sells. Chris sold 15 books. She wants to earn a minimum of \$300.

Which inequality represents this situation, and what quantities are true for  $h$ ?

- Ⓐ  $2h + 30 \leq 300$ , where  $h \leq 135$
- Ⓑ  $2h + 30 \geq 300$ , where  $h \geq 135$
- Ⓒ  $7.50h + 30 \leq 300$ , where  $h \leq 36$
- Ⓓ  $7.50h + 30 \geq 300$ , where  $h \geq 36$

- 54.** Which situation results in a solution of 0?

- Nicole walked 10 blocks north from her house to a friend's house.
- Ⓐ After visiting, Nicole walked 10 blocks south back to her house. How far was Nicole from her starting place?

- Shawn earned \$42 from babysitting last Friday night. On Saturday,
- Ⓑ Shawn earned another \$42 from babysitting. How much money did Shawn earn from babysitting?

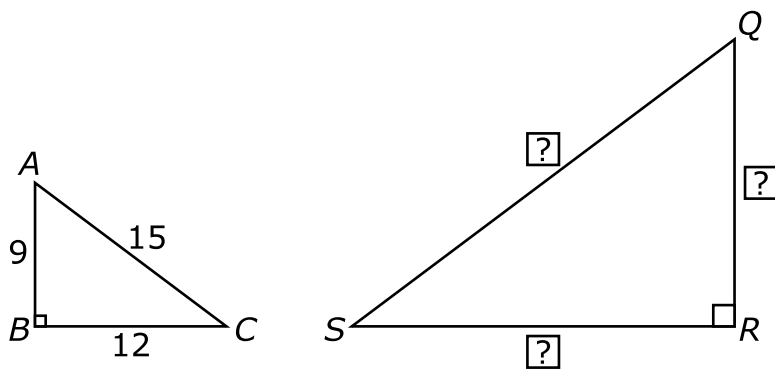
- The record low temperature in a city is  $-12$  degrees. Today, the
- Ⓒ temperature is 12 degrees. What is the difference between the record low and today's temperature?

- A building has 5 floors above ground and 5 floors below ground.
- Ⓓ An elevator descended 5 floors below ground. The elevator then rose 5 floors. How far was the elevator from the top floor?

- 55.** The windows of a school bus need to be washed by the end of the day. Mr. Casey washes  $\frac{1}{3}$  of the 33 windows before lunch. If Mr. Casey washes 8 of the remaining windows after lunch, how many windows still need to be washed by the end of the day?
- Ⓐ 11 windows
  - Ⓑ 14 windows
  - Ⓒ 19 windows
  - Ⓓ 25 windows



56. Sam drew  $\triangle ABC$ , then applied a scale factor of  $2\frac{1}{3}$  to draw  $\triangle QRS$ .



What are the side lengths of  $\triangle QRS$ ? Select the box in each row that identifies the correct value for each side.

	Side $QR$	Side $RS$	Side $QS$
$11\frac{1}{3}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$14\frac{1}{3}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$17\frac{1}{3}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 57.** At 11:00 p.m., the temperature in Alaska was  $-5^{\circ}$ . Four hours earlier, the temperature was  $40^{\circ}$  warmer. What was the temperature at 7:00 p.m.?

Ⓐ  $-45^{\circ}$

Ⓑ  $-20^{\circ}$

Ⓒ  $35^{\circ}$

Ⓓ  $45^{\circ}$

- 58.** Jim drew a triangle with side lengths, in inches, of  $3\frac{1}{2}$ ,  $4\frac{3}{4}$ , and  $5\frac{9}{10}$ . Riley made a scale drawing of Jim's triangle using a scale factor of  $\frac{1}{6}$ .

Which list shows the side lengths, in inches, of the triangle Riley drew?

Ⓐ  $\frac{7}{12}$ ,  $\frac{19}{24}$ , and  $\frac{59}{60}$

Ⓑ  $3\frac{1}{3}$ ,  $4\frac{7}{12}$ , and  $5\frac{11}{15}$

Ⓒ  $3\frac{2}{3}$ ,  $4\frac{11}{12}$ , and  $6\frac{1}{15}$

Ⓓ  $21$ ,  $28\frac{1}{2}$ , and  $35\frac{2}{5}$

**59.** Which table represents a proportional relationship?

Ⓐ

<b>x</b>	<b>y</b>
-2	-4
-1	-3
0	-1
1	1
2	3

Ⓑ

<b>x</b>	<b>y</b>
-1	2
0	4
1	6
2	8
-2	0

Ⓒ

<b>x</b>	<b>y</b>
-2	-6
-1	-5
0	0
1	-4
2	-3

Ⓓ

<b>x</b>	<b>y</b>
-3	-6
-1	-2
1	2
3	6
5	10

- 60.** The following question has two parts. First, answer Part A. Then, answer Part B.

A middle school is having a raffle for a laptop. The school will draw the winning ticket once all 450 tickets have been sold. Mark bought 5 tickets.

**Part A**

What is the probability of winning the laptop if one ticket is purchased? Express the answer as a decimal rounded to the nearest thousandth.

Write the answer in the box.

**Part B**

What is the probability that Mark will win the laptop? Express the answer as a decimal rounded to the nearest hundredth.

Write the answer in the box.

- 61.** Charlie's Pancake House has decided to increase all of its menu prices by 8%. Let  $x$  represent the original price of an item on the menu. Which expressions can the owner use to calculate each item's new menu price?

Select **two** answer choices.

- Ⓐ  $1.8x$
- Ⓑ  $108x$
- Ⓒ  $1.08x$
- Ⓓ  $x + 8x$
- Ⓔ  $x + 0.08x$

**STOP**

# Grade 7 Math Practice Test Paper-Pencil Answer Key Document

Sequence	Key	Standard	Possible Points
1	B	7.EE.3	1
2	B	7.NS.2b	1
3	C	7.SP.1	1
4	C	7.G.1	1
5	A, C	7.NS.1c	1
6	C	7.RP.2	1
7	128.6	7.EE.3	1
8	B	7.SP.2	1
9	C	7.RP.1	1
10	4, 5, 11, 14	7.EE.1	1
11	D	7.NS.3	1
12	B	7.G.6	1
13	A	7.RP.3	1
14	D, E	7.SP.8a	1
15	25.12	7.G.4	1
16	C	7.SP.3	1
17	A	7.EE.4b	1
18	C	7.RP.2d	1
19	B, D	7.EE.2	1
20	B	7.G.3	1
21	B	7.RP.1	1
22	3, 5, 12, 14	7.NS.3	1
23	D	7.SP.4	1
24	C	7.G.6	1
25	D	7.EE.1	1
26	C	7.SP.5	1
27	B	7.RP.3	1
28	B	7.G.5	1
29	60, 150	7.SP.6	2
30	A	7.NS.3	1
31	D	7.G.5	1
32	2, 4, 9	7.RP.2	1
33	C, D	7.EE.2	1
34	B	7.SP.3	1
35	D	7.EE.4a	1

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36	C	7.G.4	1
37	D	7.SP.5	1
38	A	7.EE.4a	1
39	D	7.NS.2c	1
40	C	7.SP.6	1
41	C, E	7.G.2	1
42	1, 4, 6, 7	7.SP.4	2
43	C	7.NS.2a	1
44	0.3	7.SP.7b	1
45	B	7.G.4	1
46	D	7.SP.8b	1
47	0.08	7.SP.7a	1
48	B	7.EE.3	1
49	B, C, G	7.RP.2d	2
50	4, 7, 10, 13	7.NS.2d	1
51	C	7.SP.6	1
52	C	7.G.5	1
53	D	7.EE.4b	1
54	A	7.NS.1a	1
55	B	7.EE.3	1
56	10, 14, 18	7.G.1	1
57	C	7.NS.1b	1
58	A	7.G.1	1
59	D	7.RP.2a	1
60	0.002, 0.01	7.SP.7a	2
61	C, E	7.EE.2	1