

Tennessee Comprehensive Assessment Program TCAP

Math Grade 6 | Practice Test



Please PRINT all information in the box.

Student Name: _____

Teacher Name: _____

School: _____

District: _____

All practice test items represent the appropriate grade level/content standards—however, the practice test may contain item types that no longer appear on the operational assessment.

TCAP Math Reference Sheet—Grade 6

1 yard = 3 feet

1 mile = 1,760 yards

1 mile = 5,280 feet

1 kilometer = 1,000 m

1 pound = 16 ounces

1 ton = 2,000 pounds

1 kilogram = 1,000 grams

1 cup = 8 fluid ounces

1 pint = 2 cups

1 quart = 2 pints

1 gallon = 4 quarts

1 liter = 1,000 milliliters



1 What is the product of 3.28 and 2.9?

- A. 0.618
- B. 6.18
- C. 9.512
- D. 3.608

2 In the coordinate plane, the point located at $(-3, 4)$ was reflected and is now located at $(3, 4)$. Which statement describes how the point was reflected?

- M. The point was reflected across the x -axis.
- P. The point was reflected across the y -axis.
- R. The point was reflected across the x -axis, then the y -axis.
- S. The point was reflected across the y -axis, then the x -axis.

3 What is $957 \div 33$?

Enter your answer in the space provided.



- 4 Which of the following questions are statistical questions? Select **all** that apply.
- A. How many people are in your family?
 - B. How many books did your family read this month?
 - C. How many minutes do you usually read each night?
 - D. How many siblings does each student in your class have?
 - E. How many minutes does each student in your class typically read every night?

- 5 Bananas cost \$0.59 per pound. Create an equation that could be used to find the total cost, y , of x pounds of bananas.

Enter your equation in the space provided.



- 6 What value of w makes the following equation true?

$$w + 4\frac{1}{5} = 13\frac{19}{20}$$

Enter your answer in the space provided.

- 7 Select the **two** expressions that are equivalent to $4 + w + 12w$.

M. $4 + 13w$

P. $13w^2 + 4$

R. $2(2 + 6w) + w$

S. $16 + 2w$

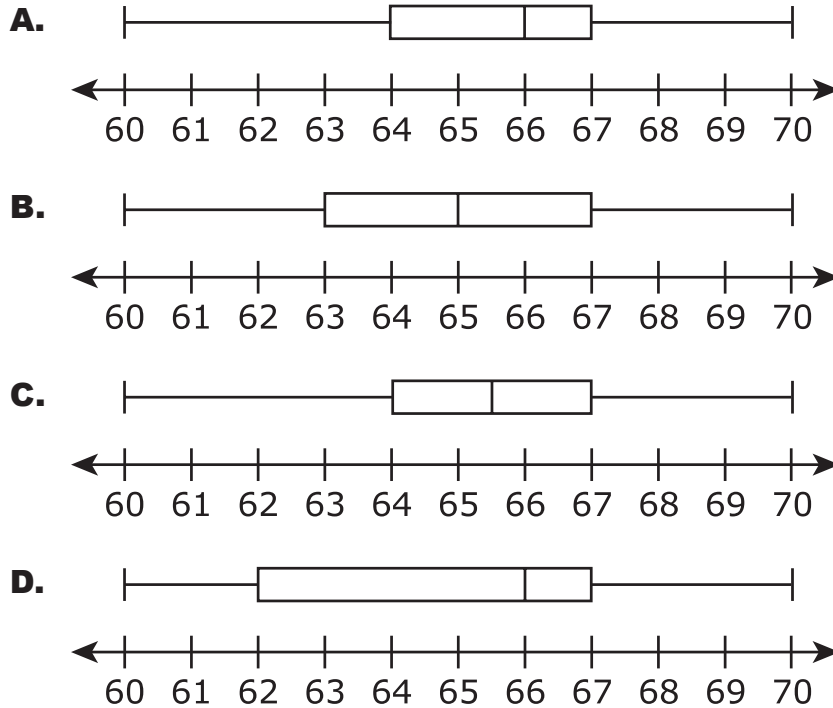
T. $2(2 + 6w^2)$



- 8** The heights, in inches, of each of the players on a girls' basketball team are shown.

66, 65, 66, 70, 66, 68, 63, 60, 66, 68, 63, 65

Which box plot correctly represents the data?





- 9 Divide.

$$2\frac{1}{6} \div 2\frac{1}{2}$$

Enter your answer in the space provided.

- 10 Quinn is playing in a trivia competition. He earns 50 points for each correct response, c . He loses 25 points for each wrong response, w . Which expression represents Quinn's total points in the trivia competition?

- M. $50c + 25w$
- P. $25c + 50w$
- R. $25c - 50w$
- S. $50c - 25w$



**This is the end of Subpart 1 of the Math Practice Test.
Do not go on to the next page until told to do so.**



- 11** A store has 40 bags of potato chips on the shelf. Of those bags, 30 are cheddar-flavored. What percentage of the bags of potato chips are **not** cheddar-flavored?

Enter your answer in the space provided.

- 12** Mario has $2\frac{1}{4}$ pounds of trail mix. He puts equal amounts of the trail mix into 6 bags for a hike with his friends.

If he uses all of the trail mix, how many pounds will be in each bag?

Enter your answer in the space provided.



- 13** Select **each** expression that shows a correct method for finding 36% of 400.

A. $36 \cdot 400$

B. $\frac{36}{100} \cdot 400$

C. $0.36 \cdot 400$

D. $\frac{0.36}{100} \cdot 400$

E. $\frac{3.6}{100} \cdot 400$

- 14** Consider the numbers 9 and 12.

Part A

What is the greatest common factor of 9 and 12?

Enter your response in the space provided.

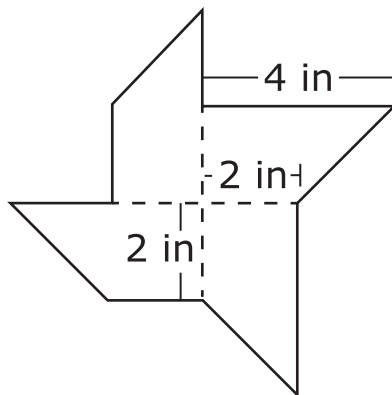
Part B

What is the least common multiple of 9 and 12?

Enter your response in the space provided.



- 15** A pinwheel's four blades are all congruent right trapezoids.



What is the combined area of the four blades, in square inches?

- M.** 8
- P.** 16
- R.** 24
- S.** 32

- 16** The area of a rectangular patio is $90\frac{3}{10}$ square feet. The length is $10\frac{1}{2}$ feet.

What is the width, in feet, of the patio?

- A.** $\frac{5}{43}$
- B.** $8\frac{3}{5}$
- C.** $79\frac{4}{5}$
- D.** $948\frac{3}{20}$



17 Which expression is equivalent to the product of 6 and y ?

M. $6 + y$

P. $6 - y$

R. $\frac{6}{y}$

S. $6y$

18 Select the value of r that makes $8r = 24$ true.

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

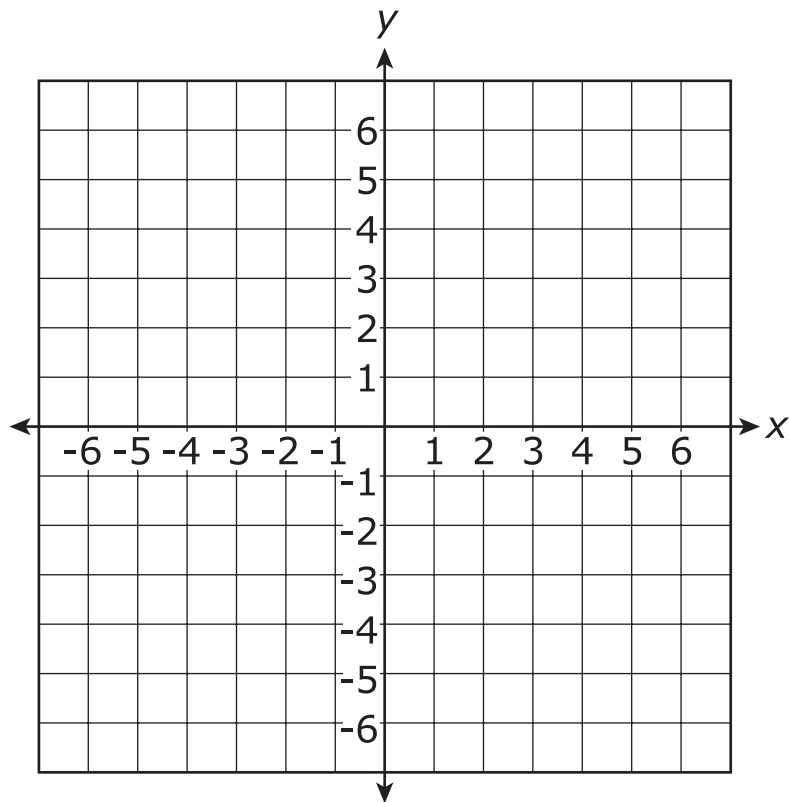
B. 3

C. 16

D. 32

**19 Part A**

Using the coordinate plane, draw a right triangle with vertices $X(-3, 3)$, $Y(-3, -3)$, and $Z(5, -3)$.

**Part B**

Line segment XZ is 10 units long. How many units is the perimeter of the right triangle?

Enter your answer in the space provided.



**This is the end of Subpart 2 of the Math Practice Test.
Do not go on to the next page until told to do so.**



- 20** At a bake sale, plates of cookies, p , are sold for \$5 each. The amount of money from the sale of cookies is expressed as dollars, d . Which equation represents the earnings of the bake sale?

Plates of Cookies (p)	Earnings (d)
1	5
2	10
3	15
4	20

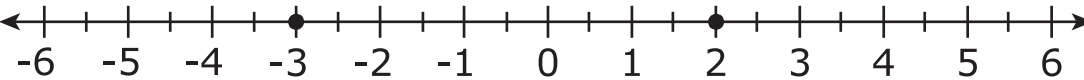
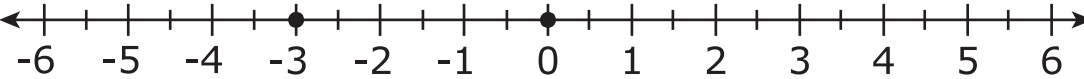
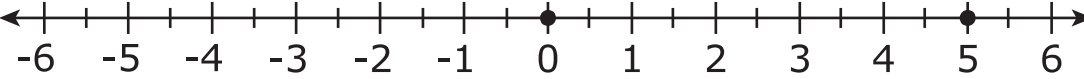
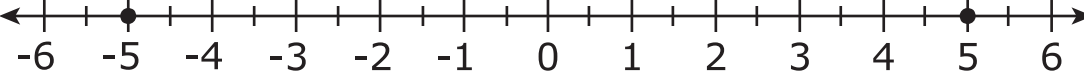
- A.** $p = 5d$
- B.** $d = p + 5$
- C.** $d = \frac{p}{5}$
- D.** $d = 5p$



21 Which situation could be solved by computing $\frac{4}{5} \div \frac{2}{3}$?

- M.** Gabriel has a piece of rope that is $\frac{4}{5}$ meter long. How many $\frac{2}{3}$ meter pieces can Gabriel cut from his rope?
- P.** Hector has $\frac{4}{5}$ cup of strawberries. He mixed in $\frac{2}{3}$ cup of blueberries. Now, how many cups of berries does he have?
- R.** Jayden spent $\frac{4}{5}$ of an hour reading. His sister, Kira, read $\frac{2}{3}$ of an hour less than Jayden. How much time did Kira spend reading?
- S.** The music teacher has $\frac{4}{5}$ of a package of paper. The art teacher has $\frac{2}{3}$ times as much paper. How much paper does the art teacher have?

22 On which number line are a number and its opposite both plotted?

- A.** 
- B.** 
- C.** 
- D.** 



- 23** Brandon has \$50 in his savings account. He plans to deposit \$20 into his savings account each month.

Which expression could be used to find the amount of money Brandon will have in his savings account after x months of making deposits?

- M.** $20x - 50$
- P.** $20x + 50$
- R.** $20 + 50x$
- S.** $20 + 50 + x$

- 24** Brian paid \$27 for 12 gallons of gasoline. To the nearest cent, how much did 1 gallon of gasoline cost?

- A.** \$0.44
- B.** \$2.00
- C.** \$2.25
- D.** \$15.00



- 25** What is the distance, in units, between the points $(11, -7)$ and $(2, -7)$ on a coordinate plane?

M. 13

P. 9

R. 5

S. 0

- 26** Adrianna has fabric that is $\frac{3}{4}$ yard long. She needs to cut the fabric into pieces that are $\frac{1}{8}$ yard long. How many $\frac{1}{8}$ yard-long pieces will she have?
Enter your answer in the space provided.



- 27** Hector is training for a race. During week 1, he will run 8 miles. He plans to run 27 miles in week 12.

Which equation shows how to find x , how many more miles Hector will run in week 12 than in week 1?

- A.** $x + 8 = 27$
- B.** $x - 8 = 27$
- C.** $-8 + x = 27$
- D.** $8 - x = 27$

- 28** What is the value of $1500 \div (6^2 + 4^3) \cdot 37$?

Enter your answer in the space provided.

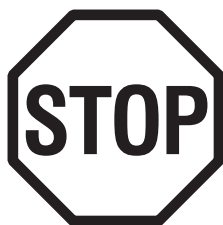


- 29** What is the value of $6(x + 15) - 12$ when $x = 12$?

Enter your answer in the space provided.

- 30** Sandra earns \$380 for working 20 hours. How much does she earn per hour?

- M.** \$360
- P.** \$190
- R.** \$19
- S.** \$18



This is the end of the test.

Subpart 1 Practice Test Questions

1. ☐ A ☐ B ☒ ☐ D2. ☐ M ☒ ☐ R ☐ S3.

29

4. ☐ A ☐ B ☐ C ☒ ☒ (select **all**)5.

$y = 0.59x$ or any equivalent equation

6.

$9\frac{3}{4}$ or any equivalent

7. ☒ ☐ P ☒ ☐ S ☐ T (select **two**)8. ☒ ☐ B ☐ C ☐ D9.

$\frac{13}{15}$ or equivalent

10. ☐ M ☐ P ☐ R ☒

Subpart 2 Practice Test Questions

11.

25 or 25%

12.

$\frac{3}{8}$ or equivalent

13. ☐ A ☒ B ☒ C ☐ D ☐ E (select **all**)

14. Part A:

3

Part B:

36

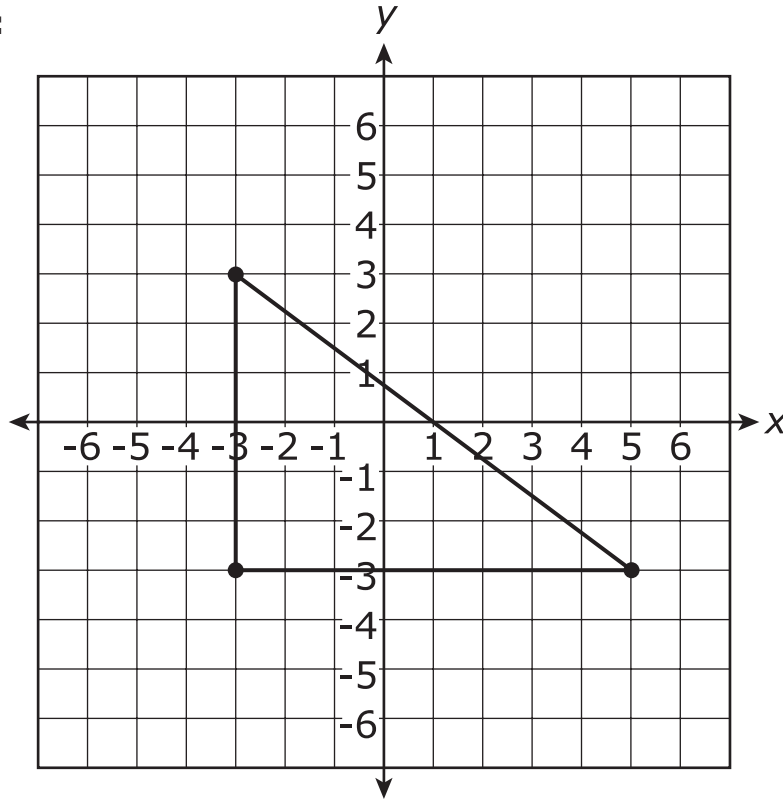
15. ☐ M ☐ P ☒ R ☐ S

16. ☐ A ☒ B ☐ C ☐ D

17. ☐ M ☐ P ☐ R ☒ S

18. ☐ A ☒ B ☐ C ☐ D

19. Part A:



Part B:

24

Subpart 3 Practice Test Questions

20. (A) (B) (C) ●

21. ● (P) (R) (S)

22. (A) (B) (C) ●

23. (M) ● (R) (S)

24. (A) (B) ● (D)

25. (M) ● (R) (S)

26.

6

27. ☒ ☐ B ☐ C ☐ D

28.

555

29.

150

30. ☐ M ☐ P ☒ ☐ S

TCAP Practice Test Standards Alignment and Key – Grade 6

Subpart 1	Key	Standard
1	C	6.NS.B.3
2	P	6.NS.C.6b
3	29	6.NS.B.2
4	D, E	6.SP.A.1
5	$y = 0.59x$ or equivalent equation	6.EE.C.9a
6	$9\frac{3}{4}$ or equivalent	6.EE.B.7
7	M, R	6.EE.A.4
8	A	6.SP.B.4
9	$\frac{13}{15}$ or equivalent	6.NS.A.1
10	S	6.EE.B.6
Subpart 2		
11	25 or 25%	6.RP.A.3c
12	$\frac{3}{8}$ or equivalent	6.NS.A.1
13	B, C	6.RP.A.3c
14	3; 36	6.NS.B.4
15	R	6.G.A.1
16	B	6.NS.A.1
17	S	6.EE.A.2a
18	B	6.EE.B.5
19	triangle drawn with vertices $(-3, 3)$, $(-3, -3)$, $(5, -3)$; 24	6.G.A.3
Subpart 3		
20	D	6.EE.C.9a
21	M	6.NS.A.1
22	D	6.NS.C.6a
23	P	6.EE.B.6
24	C	6.RP.A.2
25	P	6.NS.C.8
26	6	6.NS.A.1
27	A	6.EE.B.7
28	555	6.EE.A.1
29	150	6.EE.A.2c
30	R	6.RP.A.2