Tennessee TCAP 2020 Grade 6 Math Practice

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TCAP Math Reference Sheet—Grade 6

1 yard = 3 feet	1 cup = 8 fluid ounces
1 mile = 1,760 yards	1 pint = 2 cups
1 mile = 5,280 feet	1 quart = 2 pints
1 kilometer = 1,000 m	1 gallon = 4 quarts
	1 liter = 1,000 milliliters
1 pound = 16 ounces	
1 ton = 2,000 pounds	
1 kilogram = 1,000 grams	

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.

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 ÷ 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. $16 + 2w$

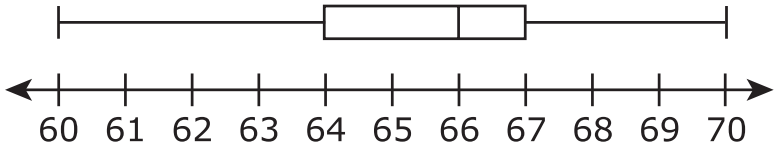
T. $2(2 + 6w^2)$

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

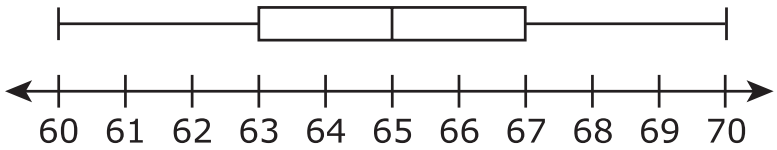
66, 65, 66, 70, 66, 68, 63, 60, 66, 68, 63, 65

Which box plot correctly represents the data?

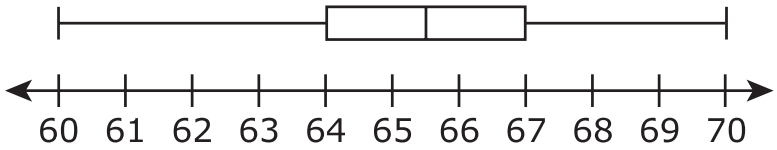
A.



B.



C.



D.

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. $50c - 25w$

STOP

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.

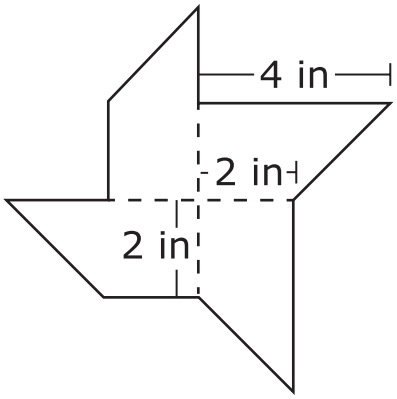
Part A
What is the greatest common factor of 9 and 12?

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

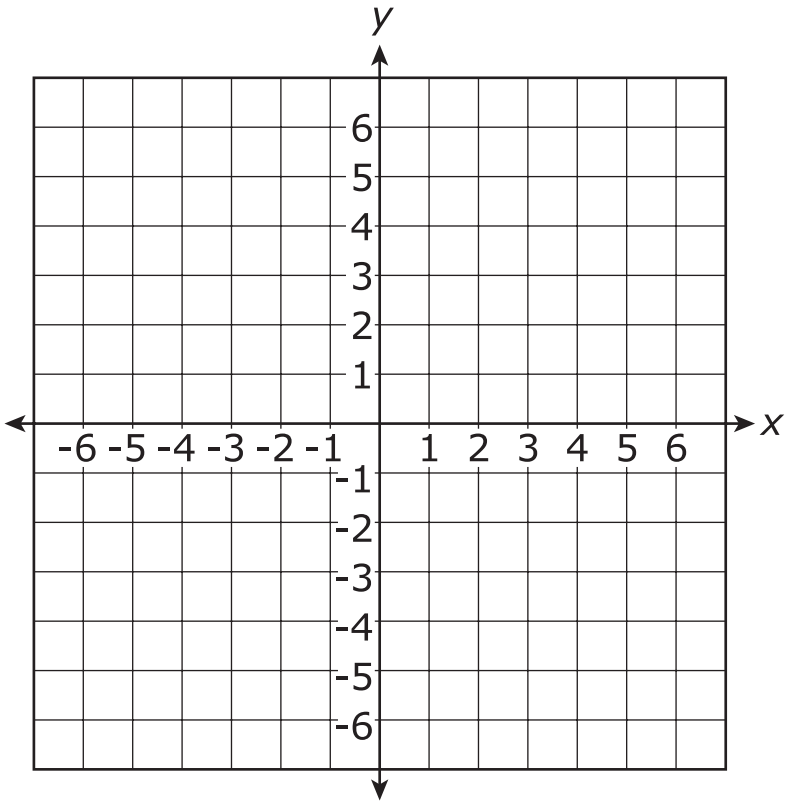
C. 16

D. 32

19

Part A

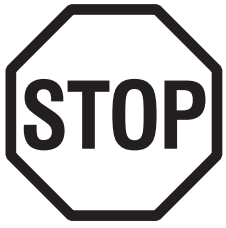
Using the coordinate plane, draw a right triangle with vertices $X(-3, 3)$, $Y(-3, -3)$, and $Z(5, -3)$.



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?

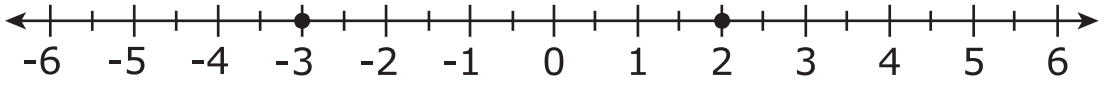
P. Hector has $\frac{4}{5}$ cup of strawberries. He mixed in $\frac{2}{3}$ cup of blueberries. Now, how many cups of berries does he have?

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?

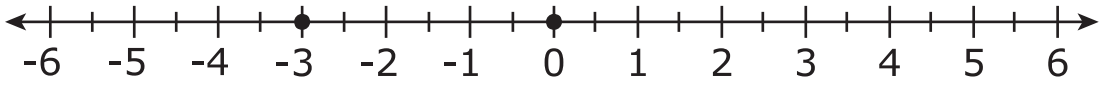
S. The music teacher has $\frac{4}{5}$ of a package of paper. The art teacher has $\frac{2}{3}$ times as much paper. How much paper does the art teacher have?

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

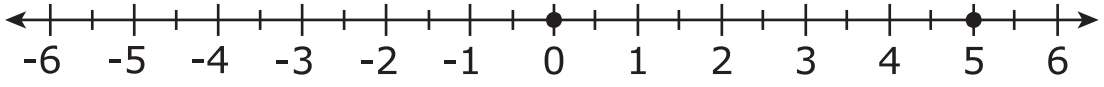
A.



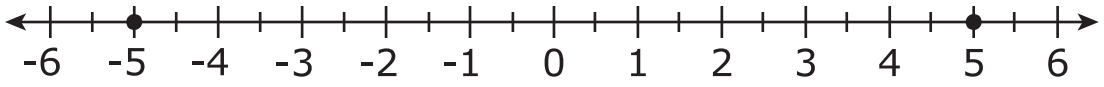
B.



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

STOP

This is the end of the test.

Subpart 1 Practice Test Questions

1. Ⓐ Ⓑ ● Ⓓ

2. Ⓜ ● Ⓡ Ⓢ

3.

29

4. Ⓐ Ⓑ Ⓒ ● ● (select **all**)

5.

$y = 0.59x$ or any equivalent equation

6.

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

7. ● Ⓟ ● Ⓢ Ⓣ (select **two**)

8. ● Ⓑ Ⓒ Ⓓ

9.

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

10. Ⓜ Ⓟ Ⓡ ●

Subpart 2 Practice Test Questions

11.

25 or 25%

12.

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

13. Ⓐ ● ● Ⓓ Ⓔ (select **all**)

14. **Part A:**

3

Part B:

36

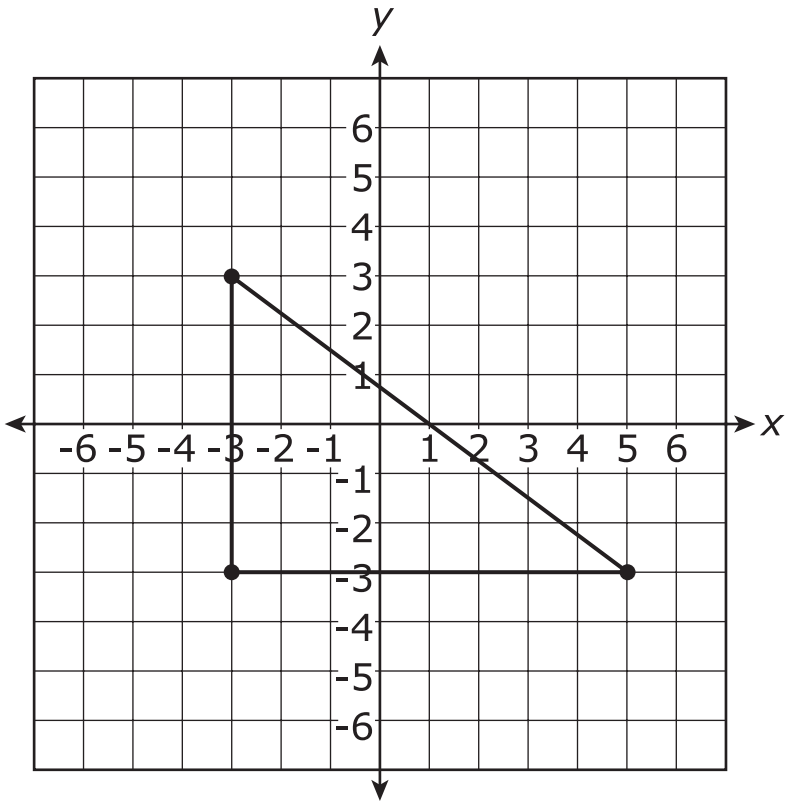
15. Ⓜ Ⓟ ● Ⓢ

16. Ⓐ ● Ⓒ Ⓓ

17. Ⓜ Ⓟ Ⓡ ●

18. Ⓐ ● Ⓒ Ⓓ

19. Part A:



Part B:

24

Subpart 3 Practice Test Questions

20. Ⓐ Ⓑ Ⓒ ●

21. ● Ⓟ Ⓡ Ⓢ

22. Ⓐ Ⓑ Ⓒ ●

23. Ⓜ ● Ⓡ Ⓢ

24. Ⓐ Ⓑ ● Ⓓ

25. Ⓜ ● Ⓡ Ⓢ

26.

6

27. ● Ⓑ Ⓒ Ⓓ

28.

555

29.

150

30. Ⓜ Ⓟ ● Ⓢ

TN Department of Education

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