Tennessee Comprehensive Assessment Program

TCAP

Math
Grade 7 Item Release

Spring 2021

TN Department of **Education**

Metadata- Math

Items

Page Number	UIN	Grade	Item Type	Key	DOK	TN Standards	Calculator
4	TN0013228	07	MC	B	2	7.EE.A.2	N
5	TN0025867	07	MC	B	2	7.RP.A.3	Y
6	TN0028479	07	MC	A	2	7.SP.B.3	N
7	TN0032026	07	MC	B	2	7.NS.A.1d	Y
8	TN0032034	07	MS	C,E	2	7.EE.A.1	Y
9	TN0032047	07	MC	C	2	7.G.A.1	Y
10	TN0069256	07	MC	B	1	7.EE.B.4b	Y
11	TN0069342	07	MC	A	1	7.NS.A.2d	N
12	TN0069349	07	MC	B	2	7.NS.A.3	Y
13	TN0069391	07	MS	A,B,D	2	7.SP.C.5	Y
14	TN0069403	07	MC	C	1	7.SP.D.8b	Y
15	TN175742	07	MC	D	2	7.RP.A.1	N
16	TN175866	07	MC	C	2	7.G.B.5	Y
17	TN375564	07	MC	D	2	7.EE.B.4	Y
18	TN777076	07	MC	C	2	7.EE.B.3	N

Metadata Definitions:

UIN	Unique letter/number code used to identify the item.
Grade	Grade level or Course.
Item Type	Indicates the type of item. MC= Multiple Choice; MS= Multiple Select
Key	Correct answer. This may be blank for constructed response items where students write or type their responses.
DOK	Depth of Knowledge (cognitive complexity) is measured on a three-point scale. 1 = Recall or simple reproduction of information; 2 = Skills and concepts: comprehension and processing of text; 3 = Strategic thinking, prediction, elaboration.
TN Standards	Primary educational standard assessed.
Calculator	Y for items that permit calculator use.

00. Felicia is buying a kayak that costs k dollars. The kayak is on sale for 33% off.

Which expression could be used to determine the sale price of the kayak?
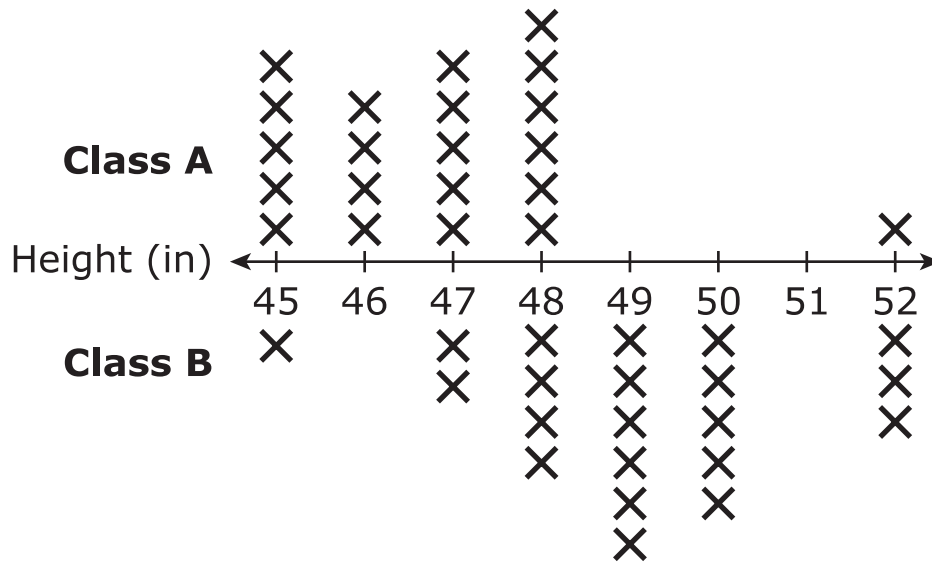
A. $0.33k$

B. $0.67k$

C. $k + 0.33k$

D. $k - 0.67k$

00. Ted makes $12 an hour delivering pizzas. If he gets a 5% raise, how much will he make delivering pizzas for 4 hours?

    A. $48.50

    B. $50.40

    C. $52.20

    D. $52.80

00. The heights in inches of students in two classes are shown below in a double line plot.

What can you conclude from the data?

A. Students in Class B are generally taller than those in Class A.

B. Students in Class A are generally taller than those in Class B.

C. The median of Class A is 48 inches.

D. The median for Class B is 47 inches.

00. Evaluate: $6(-\frac{2}{3}) - 1.5 + (\frac{1}{2})$
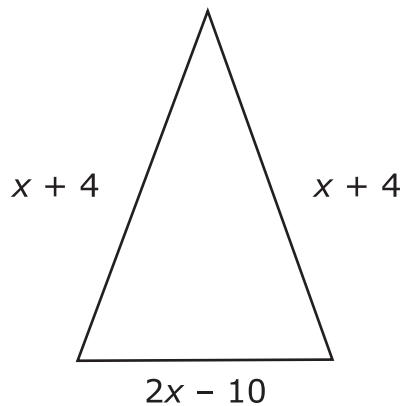
    A. -6

    B. -5

    C. 5

    D. 6

00. The side lengths of a triangle are shown.

Which expressions represent the perimeter of the triangle? Select **all** that apply.

A. $2x - 2$

B. $2x - 10$

C. $4x - 2$

D. $2(x + 4 + 2x - 10)$

E. $2(x + 4) + 2x - 10$

00. Jordan is making a scale model of the Hanging Gardens of Babylon, one of the seven wonders of the ancient world. The actual gardens were said to be 24.4 meters tall. Jordan uses a scale of 1 cm = 0.5 m.

To the nearest tenth of a centimeter, what should be the height of Jordan's model?

A. 12.2 cm

B. 24.4 cm

C. 48.8 cm

D. 122.0 cm

00. If $x = 6$, which inequality is true?

A. $-4 - 2x > 9$

B. $-3 - 6x < -38$

C. $8 - 5x > 20$

D. $1 - x < -5$

00. What is this number written as a decimal?

$$5\frac{4}{5}$$

A. 5.8

B. 5.58

C. 5.45

D. 5.4

00. A scuba diver takes photographs of fish swimming below the surface of the water.

- The diver descends from the surface at a rate of 3 feet every 2.5 seconds.
- The diver takes 35 seconds to reach the depth where the fish are located.

How many feet below the surface of the water are the fish located?

A. 105 feet

B. 42 feet

C. 29 feet

D. 17 feet

00. Ellen has three packages of markers. Exactly 10 of the markers in each package are yellow markers.

- Package *T* contains 10 markers.

- Package *V* contains 40 markers.

- Package *W* contains 40 markers.

Ellen will randomly select one marker from each package. Which statements are true?

Select the **three** that apply.

A. The probability of selecting a yellow marker from Package *T* is 1.

B. The probability of selecting a yellow marker is equal for packages *V* and *W*.

C. The probability of randomly selecting a yellow marker from Package *V* is $\frac{1}{3}$.

D. The probability of selecting a yellow marker is less for Package *W* than it is for Package *T*.

E. The probability of selecting a yellow marker from Package *V* is four times the probability of selecting a yellow marker from Package *T*.

00. Manny collected data about the number of points a football team scored last season. He determined that the median number of points scored was equal to the mean number of points scored. Which graph best models this situation?

A.

C.

B.

D.
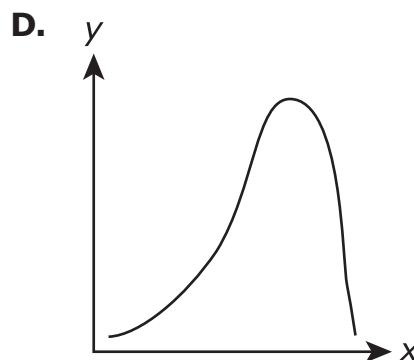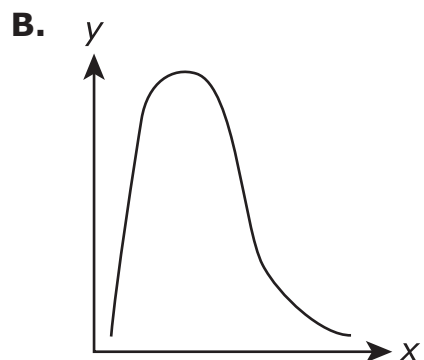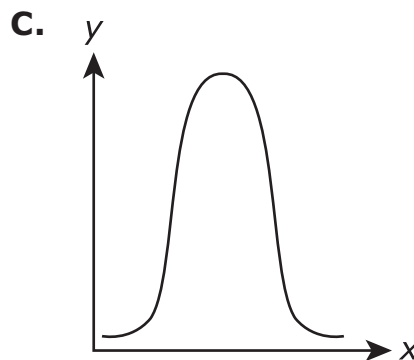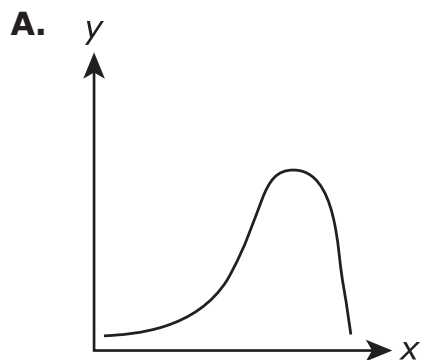
00. A turtle walks $\frac{3}{2}$ miles in $\frac{1}{2}$ hour.

What is the turtle's unit rate in miles per hour?

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

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

C. 2

D. 3

00. A rectangular prism has a base that is 6 centimeters by 11 centimeters, and has a height of 5.5 centimeters.

What is the surface area, in square centimeters, of the prism?

A. 253

B. 286

C. 319

D. 363

00. A cook at a restaurant is calculating the amounts of ingredients needed to make soup for the next 5 days. For each of these days, she will use $2\frac{1}{8}$ pounds of carrots and y pounds of celery. She will use a total of $19\frac{3}{8}$ pounds of carrots and celery to make all the soup.

Which equation shows how to find the number of pounds of celery, y, she will use to make soup each day?

A. $y = 19\frac{3}{8} - 2\frac{1}{8}$

B. $y = 19\frac{3}{8} \div 5$

C. $y = (19\frac{3}{8} - 2\frac{1}{8}) \div 5$

D. $y = (19\frac{3}{8} \div 5) - 2\frac{1}{8}$

00. Amelia divided these mixed numbers.

$$12\frac{1}{18} \div 3\frac{11}{12}$$

Which would provide the closest estimate for the quotient and **best** describes the answer?

A. Round the numbers to divide 12 by 3, so the answer should be a little more than 4.

B. Round the numbers to divide 12 by 3, so the answer should be a little less than 4.

C. Round the numbers to divide 12 by 4, so the answer should be a little more than 3.

D. Round the numbers to divide 12 by 4, so the answer should be a little less than 3.

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