

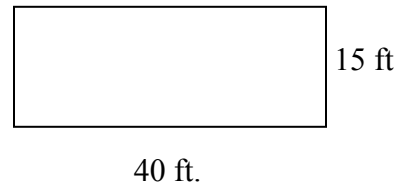
**GRADE 8 CMT Practice Test #3**

**DIRECTIONS**

**Read each question and choose the best answer. Circle the letter for the answer you have chosen.**

- The school auditorium was  $\frac{7}{8}$  full. What percent of the auditorium was full?  
A. 7.8%                      B. 37.5%                      C. 62.5%                      D. 87.5%
- Which statement is correct?  
A.  $(2 \times 3) + 5 \div 8 = 2$                       B.  $(2 \times 3 + 5) \div 8 = 2$   
C.  $2 \times (3 + 5) \div 8 = 2$                       D.  $2 \times 3 + (5 \div 8) = 2$
- Which expression is equivalent to the number 8,006,425?  
A.  $(8 \times 10^7) + (6 \times 10^6) + (4 \times 10^3) + (2 \times 10^2) + (5 \times 10^1)$   
B.  $(8 \times 10) + (6 \times 10) + (4 \times 10) + (2 \times 10) + (5 \times 10)$   
C.  $(8 \times 10^6) + (6 \times 10^5) + (4 \times 10^4) + (2 \times 10^3) + (5 \times 10^2)$   
D.  $(8 \times 10^6) + (6 \times 10^3) + (4 \times 10^2) + (2 \times 10^1) + (5 \times 10^0)$
- There are 300 students in the eighth grade. The ratio of girls to boys is 3 to 2. What percent of the students are boys?  
A.  $33\frac{1}{3}\%$                       B. 40%                      C.  $66\frac{2}{3}\%$                       D. 150%
- A car traveled 187 miles in 3 hours and 24 minutes. What was the average speed of the car in miles per hour?  
A. 50                      B. 55                      C. 58                      D. 62

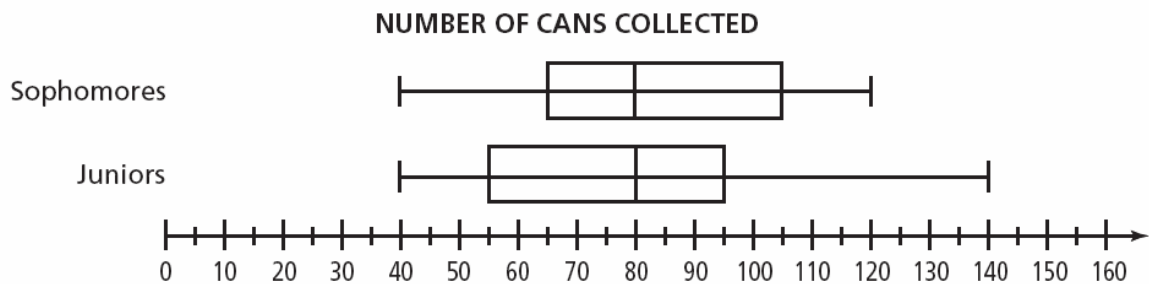
- Joseph needs to calculate how much grass seed he needs to cover his lawn. A diagram of his lawn is shown below. One pound of seed covers an area of 100 square feet and the seed is sold in five-pound bags.



How many bags will he need?

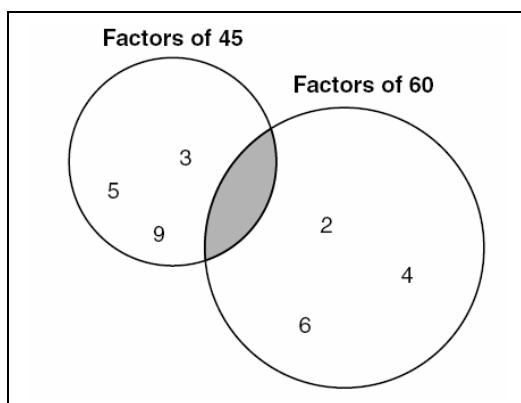
- A. 1                      B. 2                      C. 3                      D. 5

7. A dinner plate has a diameter of 7 inches. Approximately how many inches is the circumference of the plate?
- A. 14 inches      B. 22 inches      C. 44 inches      D. 154 inches
8. In the first race of the season, Carol swam her event in 5 minutes and 15 seconds. Her goal was to be able to swim the same distance in  $\frac{2}{3}$  the time by the end of the season. If she reaches her goal, how long will it take for her to swim the race at the end of the season?
- A. 1 minute and 45 seconds      B. 2 minutes and 30 seconds  
C. 3 minutes and 30 seconds      D. 3 minutes and 40 seconds
9. The two box-and-whisker plots below show the number of cans the members of the sophomore and junior classes collected for a fundraiser.



What statement about the data in the two plots must be true?

- A** The sophomores and juniors collected the same number of cans.  
**B** The median number collected was the same for both classes.  
**C** The mean number collected was the same for both classes.  
**D** The upper extreme value was the same for both classes.
10. Loretta is filling numbers in the Venn diagram. No number is to be entered more than once.



What is the greatest number that can be appropriately placed in the shaded area of the diagram?

- A. 5      B. 10  
C. 15      D. 180

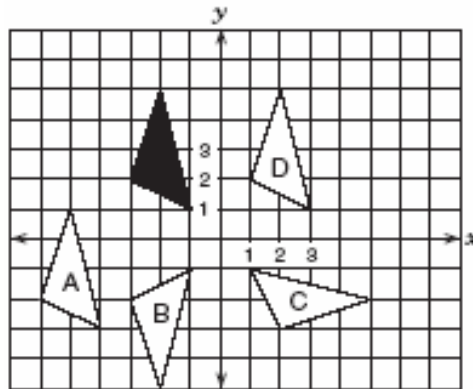
11. Mark layered 3 pieces of wood to build the base for a lamp. The pieces were  $\frac{1}{4}$  inch thick,  $\frac{5}{8}$  inch thick, and  $\frac{3}{16}$  inch thick. How thick was the base for the lamp?

- A.  $\frac{7}{16}$  in.      B.  $\frac{9}{16}$  in.      C.  $\frac{15}{16}$  in.      D.  $1\frac{1}{16}$  in.

12. What is the value of  $\frac{y^2}{5} + y^2 - 12$ , when  $y = 5$ ?

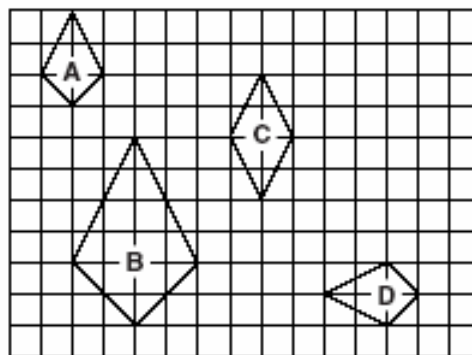
- A. 13      B. 16      C. 18      D. 22

13. Which white triangle shows where the black triangle would be if reflected across the x-axis?



- A. A      B. B      C. C      D. D

14. Which figures appear to be congruent?

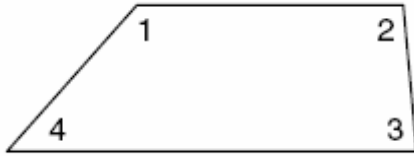


- A. B and A      B. D and B      C. D and C      D. A and D

15. On your first draw, what is the probability of drawing a red card, without looking, from a shuffled deck containing 6 red cards, 6 blue cards, and 8 black cards?

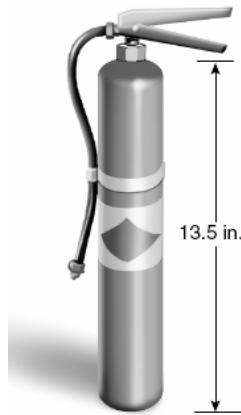
- A 10%      B 20%      C 30%      D 40%

16. Look at the angles in this quadrilateral.



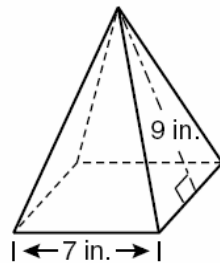
Which angle measure is closest to  $48^\circ$ ?

- A.  $\angle 1$       B.  $\angle 2$       C.  $\angle 3$       D.  $\angle 4$
17. The cylindrical canister of this fire extinguisher has a radius of 2.5 inches and is 13.5 inches high.



Which is closest to the number of cubic inches it will hold when filled?

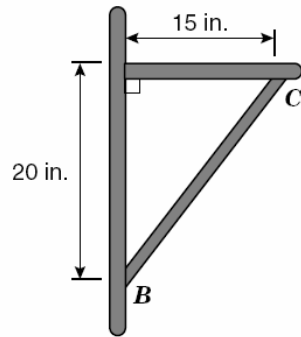
- A. 1,060      B. 265      C. 212      D. 115
18. As part of an art project, Billy has to paint the surface area of a square-based pyramid. The pyramid has the dimensions shown.



What is the total surface area of the pyramid?

- A. 441 sq in.      B. 301 sq in.      C. 252 sq in.      D. 175 sq in.

19. This is a cross section of the design of a bookshelf.



Which is closest to the length, in inches, of the brace indicated by BC in the sketch?

- A. 25 in.      B. 30 in.      C 32.5 in.      D. 35 in.

20. The chart shows the pizza menu for the local pizza parlor.

Pizza		
Size	Crust	Toppings
Small	Thin	Pepperoni
Medium		Hamburger
Large	Original	Cheese
Extra Large	Thick	Sausage

Which of the following shows the total number of ways Andy can buy a pizza with one topping?

- A.  $4 + 3 \times 4$       B.  $4 \times 3 \times 4$       C  $(4 \times 3) + (4 \times 3)$       D.  $(4 \times 4) + 3$

21. The stem-and-leaf plot shows the highest January temperature in degrees Fahrenheit for 10 U.S. cities.

Stem	Leaf
3	7, 8, 9
4	2, 2, 6, 7
5	3, 4
6	0

In how many cities is the highest January temperature above 45 degrees Fahrenheit?

- A. 4      B. 5      C. 6      D. 7

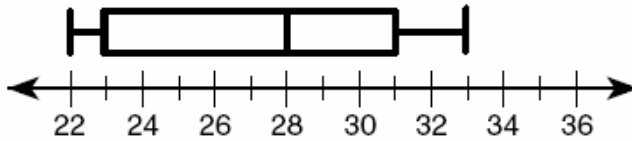
22. These cards are used to play a game between two players.



If Sally draws one card at random, what is the probability it will be a card with a star?

- A.  $\frac{2}{5}$                       B.  $\frac{3}{10}$                       C.  $\frac{1}{5}$                       D.  $\frac{1}{10}$

23. The box-and-whisker plot shows the class sizes in 15 schools.



Which statement concerning the class sizes must be true?

- A. The range of size is 8.                      B. The largest class is 31.  
 C. Half of the classes are larger than 23.                      D. The median class size is 28.
24. What value of  $c$  makes the sentence  $5(c - 0.15) = 2.50$  true?  
 A. 0.47                      B. 0.53                      C. 0.63                      D. 0.65

25. The table shows the relationship between  $d$ , the number of days a library book is overdue, and  $f$ , the amount of the fine.

$d$	1	2	3	4	5
$f$	\$0.05	\$0.10	\$0.15	\$0.20	\$0.25

Which of the following describes the relationship?

- A.  $f = 0.05 d$                       B.  $f = d + 0.05$   
 C.  $f = 2d + 0.05$                       D.  $f = (d + 2) 0.05$