

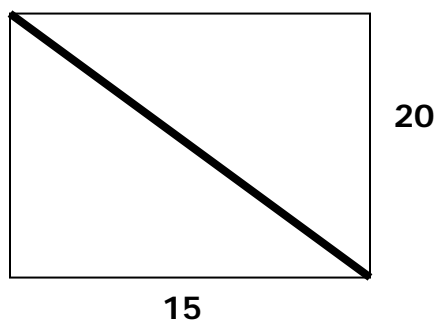
1. The Mitchells are building a pool in their yard. The pool will be 10 feet long and 3 feet deep. How many **cubic feet** of water does the pool hold?

(1) 10 feet  
(2) 14 feet  
(3) 29 feet  
(4) 100 feet  
(5) Not enough information is given.

2. An isosceles triangle has a vertex angle of  $44^\circ$ . Find the value of **each base angle**.

(1)  $42^\circ$   
(2)  $48^\circ$   
(3)  $68^\circ$   
(4)  $132^\circ$   
(5)  $180^\circ$

3. The diagonal distance is the distance from corner to corner. Find the **diagonal** distance of this rectangle.



(1) 18  
(2) 24  
(3) 25  
(4) 27  
(5) Not enough information is given.

4. Suzanne is making curtains for 4 windows. Each side of the windows is 4.5 feet. How many square feet of material will she need for all 4 windows?

(1) 11 feet<sup>2</sup>  
(2) 22 feet<sup>2</sup>  
(3) 20.25 feet<sup>2</sup>  
(4) 60.5 feet<sup>2</sup>  
(5) 81feet<sup>2</sup>

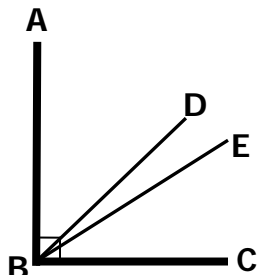
5. Juanita spent her total allowance of \$7.60 on video games and snacks. She spent 3 times more on video games than on snacks. How much did she spend on **snacks**?

(1) \$1.60  
(2) \$1.90  
(3) \$5.03  
(4) \$5.40  
(5) \$9.00

6. Henrika has 4 **different** sweaters, 4 **different** pants, and 2 **different** scarves. How many **different** combinations can she wear?

(1) 10  
(2) 12  
(3) 16  
(4) 32  
(5) Not enough information is given.

7. In the diagram below, angle ABC is a right angle. Ray BD bisects (cuts in half) angle ABC. The measurement of angle DBE is  $15^\circ$ . What degree of measurement is angle EBC?



- (1)  $30^\circ$   
 (2)  $45^\circ$   
 (3)  $55^\circ$   
 (4)  $60^\circ$   
 (5)  $90^\circ$
8. James has 12 different shirts and 5 different ties. How many different combinations can he wear?
- (1) 10  
 (2) 16  
 (3) 30  
 (4) 60  
 (5) Not enough information is given.

9. 12 women and 8 men are in the nursing program. What is the ratio of men to women?

	⊗	⊗	⊗	
⊙	⊙	⊙	⊙	⊙
①	①	①	①	①
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

10. Margie has 3 different types of ice cream and 8 different types of ice cream toppings. How many different combinations of ice cream and ice cream toppings can she serve?
- (1) 11  
 (2) 24  
 (3) 32  
 (4) 40  
 (5) 64

11. What is the value of x in the following expression?  
 $10(x) + 6 = 12(x)$

- (1) 0  
 (2) 1  
 (3) 2  
 (4) 3  
 (5) 4

12. Paula was doing five math questions. It took her a fraction of a minute to solve each one. Which question was the **easiest** to do?

Question 1 took  $\frac{3}{5}$  of a minute  
 Question 2 took  $\frac{3}{6}$  of a minute  
 Question 3 took  $\frac{11}{20}$  of a minute  
 Question 4 took  $\frac{10}{30}$  of a minute  
 Question 5 took  $\frac{3}{10}$  of a minute

- (1) Question 1  
 (2) Question 2  
 (3) Question 3  
 (4) Question 4  
 (5) Question 5

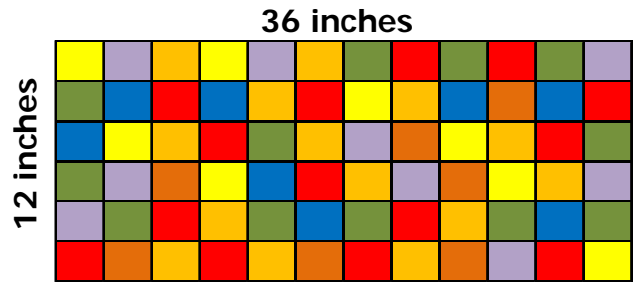
13. There are 7 men and 8 women who showed up for jury duty for the Bernie Madoff trial. What is the **probability that a woman** will be chosen for jury duty?

- (1)  $\frac{1}{5}$   
 (2)  $\frac{1}{7}$   
 (3)  $\frac{1}{15}$   
 (4)  $\frac{7}{15}$   
 (5)  $\frac{8}{15}$

14. Larry began working at 12:40. He was finished  $1\frac{3}{4}$  hours later. At what time did he finish?

- (1) 1:30  
 (2) 2:15  
 (3) 2:25  
 (4) 2:30  
 (5) 3:00

15. Stella's grandmother's quilt had the following dimensions when it was folded in  $\frac{1}{2}$  and then in  $\frac{1}{2}$  again.



Which expression below indicates the **area** in square inches of her grandmother's quilt when it is completely unfolded?

- (1)  $12 \times 36 \times 2 \times 2 \times 2$   
 (2)  $12 \times 36 \times 2 \times 2$   
 (3)  $12 \times 36 \times 2$   
 (4)  $12 \times 36 \times \frac{1}{2}$   
 (5)  $12 \times 36 \times \frac{1}{2} \times \frac{1}{2}$

16. In the game of basketball, each goal is worth 2 points. Each free throw is worth 1 point.

**G = field goal**

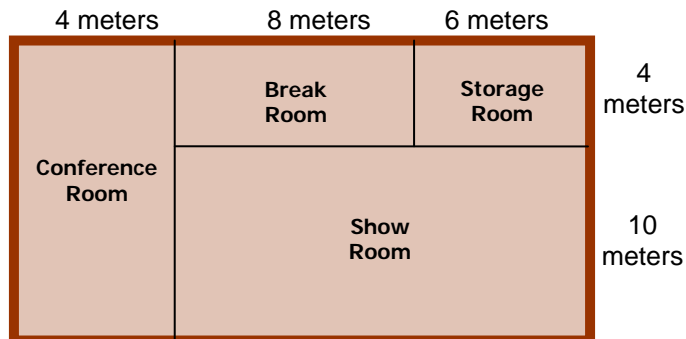
**T = free throw**

**P = total number of points**

Which expression shows the **total number of points** the Nuggets scored in last night's game against the Oklahoma Thunder?

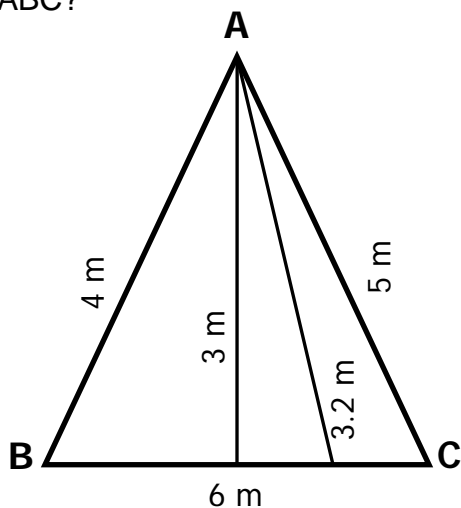
- (1)  $P = 2G + T$   
 (2)  $P = 2T + g$   
 (3)  $P = 2(G + T)$   
 (4)  $P = 2 + G + T$   
 (5)  $P = \frac{9}{2} + T$

Questions 17 – 20 are based on the following floor plan below:



17. **Approximately**, what is the area of the entire floor?
- (1) 80 meters<sup>2</sup>
  - (2) 180 meters<sup>2</sup>
  - (3) 200 meters<sup>2</sup>
  - (4) 225 meters<sup>2</sup>
  - (5) 250 meters<sup>2</sup>
18. What is the area of the Break Room?
- (1) 32 meters<sup>2</sup>
  - (2) 40 meters<sup>2</sup>
  - (3) 48 meters<sup>2</sup>
  - (4) 112 meters<sup>2</sup>
  - (5) 252 meters<sup>2</sup>
19. What is the area of the Conference Room?
- (1) 15 meters<sup>2</sup>
  - (2) 40 meters<sup>2</sup>
  - (3) 56 meters<sup>2</sup>
  - (4) 120 meters<sup>2</sup>
  - (5) Not enough information is given.
20. The area of the Break Room increased by 50%. **Approximately, what percent** of the entire floor is the Break Room?
- (1) 2%
  - (2) 20%
  - (3) 25%
  - (4) 28%
  - (5) 95%
21. The price of a gallon of gasoline rose from \$1.60 a gallon to \$1.92. By what percent did the price increase?
- (1) 2%
  - (2) 5%
  - (3) 10%
  - (4) 15%
  - (5) 20%
22. In Grand Junction the ratio of men to women affected by noise pollution is 1:3. There are a total of 40,000 people in Grand Junction. **How many men are affected by noise pollution?**
- (1) 10,000
  - (2) 20,000
  - (3) 25,000
  - (4) 30,000
  - (5) 35,000

23. In the diagram below, which equation shows how to find the area in square meters of triangle ABC?



- (1)  $A = \frac{1}{2} \times 6 \times 3$   
 (2)  $A = \frac{1}{2} \times 6 \times 3.2$   
 (3)  $A = \frac{1}{2} \times 6 \times 4$   
 (4)  $A = \frac{1}{2} \times 6 \times 5$   
 (5) Not enough information is given.
24. What is the value of  $10^{-5} \times 6^2$ ?
- (1) .00060  
 (2) .00036  
 (3) .000036  
 (4) 36,000  
 (5) 360,000
25. Martha can get 4 sausage grinders from 1 pound of sausage. How many sausage grinders can she get from 13.5 pounds of sausage?
- (1) 51  
 (2) 52  
 (3) 53  
 (4) 54  
 (5) 55

26. Juan and Irene would like to buy a stereo system that costs \$1200. They have two options.

**Option 1**

10% down +  
 \$50 a month for 24 months

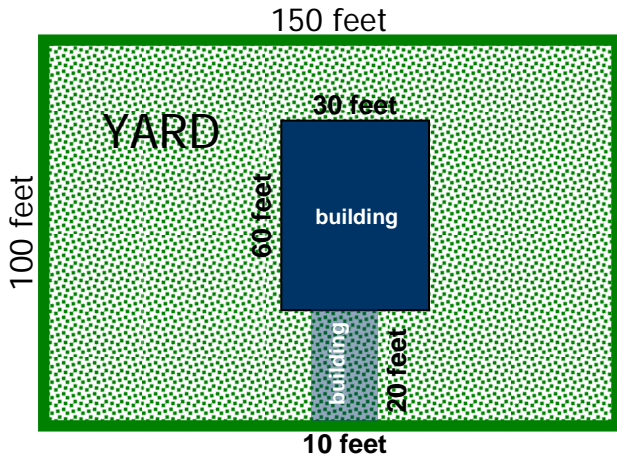
**Option 2**

\$299 down +  
 \$35 a month for 20 months

How much can they save if they choose the **cheaper** option?

	⊗	⊗	⊗	
⊙	⊙	⊙	⊙	⊙
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

Question 27 is based on the following figure.



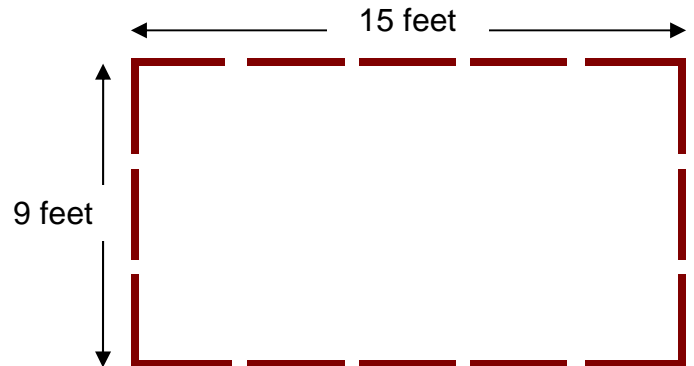
27. Wayne wants to spread grass seed in his yard. The seed cost \$.05 per square foot, how much would it cost him to seed just the lot?

- (1) \$130.00
- (2) \$180.00
- (3) \$200.00
- (4) \$650.00
- (5) \$750.00.

28. Mary is cooking a brisket that will take 3 hours to cook. She put the brisket in the oven at 2:15. She also wants to bake a cake, which will take 45 minutes to bake. She wants the cake and brisket to be done at the same time. At what time should Mary put the cake in the oven so both the cake and the brisket are done at the same time?

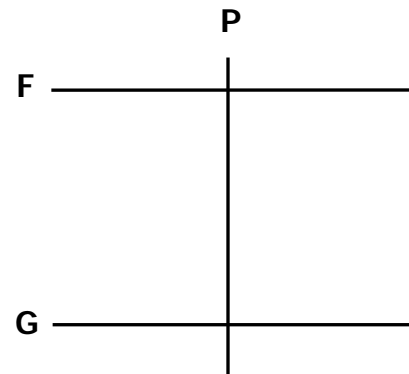
- (1) 4:30
- (2) 5:00
- (3) 6:30
- (4) 7:00
- (5) 7:30

29. James is going to fence his yard. 10 feet of wood are required for every 3 feet of fence. How much wood should James buy?



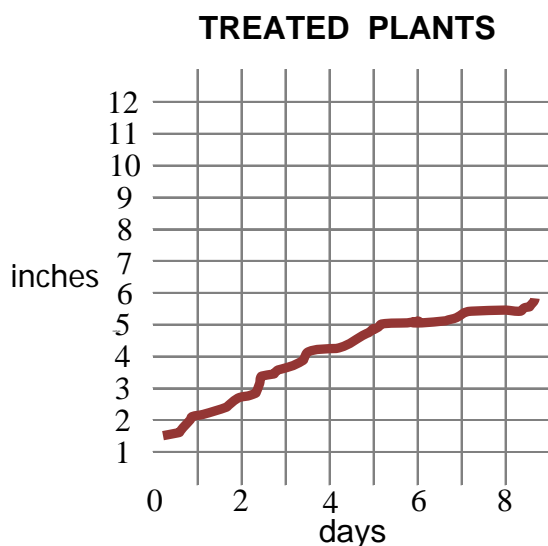
- (1) 30 feet
- (2) 60 feet
- (3) 100 feet
- (4) 160 feet
- (5) 200 feet

30. Lines **F** and **G** are parallel. **P** is perpendicular to **F**. What is the value of each angle made by line **P**?



- (1)  $60^\circ$
- (2)  $80^\circ$
- (3)  $90^\circ$
- (4)  $180^\circ$
- (5) Not enough information is given.

Questions 31 and 32 refer to the following graph.



31. After 7 days, **approximately** how tall will the treated plants be?
- (1) 7 inches
  - (2) 5 inches
  - (3) 4 inches
  - (4) 3 inches
  - (5) 2 inches
32. **Approximately** how many days will it take the treated plants to reach a height of 3 inches?
- (1) 0 days
  - (2) 1 days
  - (3) 2 days
  - (4) 4 days
  - (5) 5 days

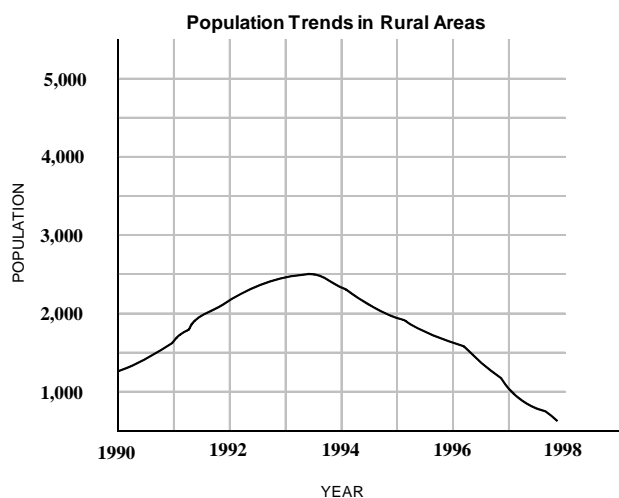
Questions 33 and 34 refer to the following information.

**Bianca's Designer Boutique**

article of clothing	fabric requirement	cost per article
shirt	2 $\frac{3}{4}$ yards of fabric	\$8.00
skirt	3 $\frac{1}{2}$ yards of fabric	\$12.00
belt	$\frac{1}{2}$ yard of fabric	\$4.50
pants	4 $\frac{1}{4}$ yards of fabric	\$12.75

33. Which expression shows the **total cost** of 3 skirts and 2 shirts?
- (1)  $8 (12)$
  - (2)  $8 (2) + 3 (3)$
  - (3)  $(8 \times 2) + (12 \times 3) + 4.5$
  - (4)  $(8 \times 3) + (12 \times 2)$
  - (5)  $(8 \times 2) + (12 \times 3)$
34. How many yards of material are needed for 2 shirts?
- (1) 5 yards
  - (2) 5  $\frac{1}{2}$  yards
  - (3) 6 yards
  - (4) 6  $\frac{1}{2}$  yards
  - (5) 7 yards

Question 35 refers to the following graph.



35. According to the graph, what was the population trend in 1995?

- (1) 3000
- (2) 2500
- (3) 2000
- (4) 500
- (5) 250

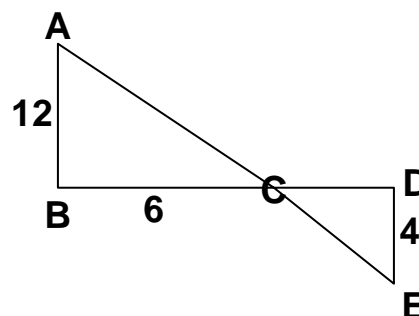
36. 1 cup of sugar is mixed with 4 cups of water to make humming bird food. How many cups of sugar would be in 1 gallon of humming bird food? **There are 16 cups in one gallon.**

- (1) 3.1
- (2) 3.2
- (3) 3.5
- (4) 3.6
- (5) 4

37. There are 20 students in Mr. Martin's class. Mr. Martin has enough Halloween treats for each student to have 12 pieces. 4 students did not want treats. How many treats did each of the remaining students receive?

- (1) 12
- (2) 13
- (3) 14
- (4) 15
- (5) 16

38. Which expression correctly determines the value of **side CD**?



- (1)  $\frac{AB}{DE} = \frac{BC}{CD}$
- (2)  $\frac{AB}{DE} = \frac{CD}{BC}$
- (3)  $\frac{AB}{BC} = \frac{CD}{DE}$
- (4)  $\frac{BC}{AB} = \frac{DE}{CD}$
- (5)  $\frac{CD}{AB} = \frac{DE}{BC}$