

Math Level 2 SAT Practice Test 12

SET-1

1. Of the following, which is greater than $\frac{1}{2}$?

A. $\frac{2}{5}$

B. $\frac{4}{7}$

C. $\frac{4}{9}$

D. $\frac{5}{11}$

E. $\frac{6}{13}$

2. If an object travels at five feet per second, how many feet does it travel in one hour?

A. 30

B. 300

C. 720

D. 1800

E. 18000

3. What is the average (arithmetic mean) of all the multiples of ten from 10 to 190 inclusive?

A. 90

B. 95

C. 100

D. 105

E. 110

4. A cubical block of metal weighs 6 pounds. How much will another cube of the same metal weigh if its sides are twice as long?

A. 48

B. 32

C. 24

D. 18

E. 12

5. In a class of 78 students 41 are taking French, 22 are taking German. Of the students taking French or German, 9 are taking both courses. How many students are not enrolled in either course?

A. 6

B. 15

C. 24

D. 33

E. 54

6. If $f(x) = |x^2 - 50|$, what is the value of $f(-5)$?

A. 75

B. 25

C. 0

D. -25

E. -75

7. $(\sqrt{2} - \sqrt{3})^2 =$

A. $5 - 2\sqrt{6}$

B. $5 - \sqrt{6}$

C. $1 - 2\sqrt{6}$

D. $1 - \sqrt{2}$

E. 1

8. $2^{\frac{30}{2}} + 2^{\frac{30}{2}} + 2^{\frac{30}{2}} + 2^{\frac{30}{2}} =$

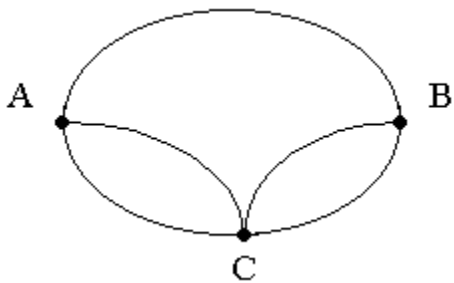
A. 8^{120}

B. 8^{30}

C. 2^{32}

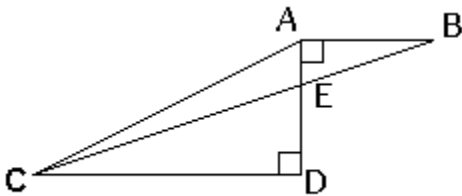
D. 2^{30}

E. 2^{26}



9. Amy has to visit towns B and C in any order. The roads connecting these towns with her home are shown on the diagram. How many different routes can she take starting from A and returning to A, going through both B and C (but not more than once through each) and not travelling any road twice on the same trip?

- A. 10
- B. 8
- C. 6
- D. 4
- E. 2



10. In the figure above $AD = 4$, $AB = 3$ and $CD = 9$. What is the area of triangle AEC ?

- A. 18
- B. 13.5
- C. 9
- D. 4.5
- E. 3

SET-2

1. 145 300 610 1230

In the above sequence every term after the first is formed by multiplying by x and then adding y , where x and y are positive integers. What is the value of $x + y$?

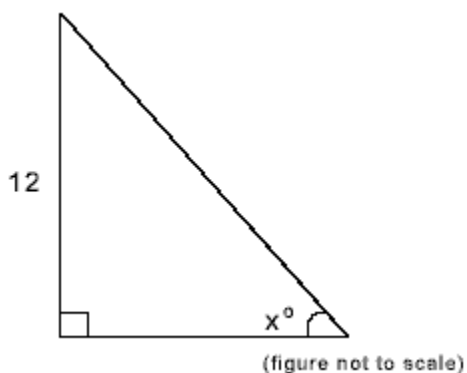
2. A confectioner has 500 mint, 500 orange and 500 strawberry flavored sweets. He wishes to make packets containing 10 mint, 5 orange and 5 strawberry sweets. What is the maximum number of packets of this type he can make?

3. If S is the sum of 8,6,4,2 and x , what must be the value of x for x to equal $\frac{1}{5} S$?

4. 25 per cent of 600 is equal to 15 per cent of what number?

5. What is the maximum number of points of intersection of four distinct lines in a plane?

6. If one edge of a 6-inch ruler is to be marked in $\frac{1}{10}$ inch units, how many marks will there be on the edge including the 0 and 6 inch marks?



7. If the area of the right triangle above is 72, what is the value of x ?

8. Given that the sum of the odd integers from 1 to 99 inclusive is 2500, what is the sum of the even integers from 2 to 100 inclusive?

9. In a certain game of 50 questions, the final score is calculated by subtracting twice the number of wrong answers from the total number of correct answers. If a player attempted all questions and received a final score of 35, how many wrong answers did he give?

10. What positive value for k would make the following the equations of a pair of parallel lines on the same coordinate axes?

$$y = kx - 2 \text{ and } ky = 9x - 7$$