

Each test has ten questions and should take 12 minutes.

## Problem Solving

Test No: 01

Top of Form 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.  $\frac{6}{13}$

What is  $\frac{1}{2}$  of these?

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

- 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 and 9 students are taking both French and German. How many students are not enrolled in either course?

- A. 6
- B. 15
- C. 24
- D. 33
- E. 54

6. A straight fence is to be constructed from posts 6 inches wide and separated by lengths of chain 5 feet long. If a certain fence begins and ends with a post, which of the following could be the length of the fence in feet? (12 inches = 1 foot)

- A. 17
- B. 28
- C. 35
- D. 39
- E. 50

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

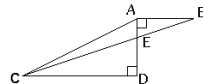
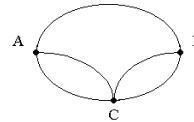
- A.  $5 - 2\sqrt{6}$
- B.  $5 - \sqrt{6}$
- C.  $1 - 2\sqrt{6}$
- D.  $1 - \sqrt{2}$
- E. 1

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

- A. 8120
- B. 830
- C. 232
- D. 230
- E. 226

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 and not travelling any road 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

<http://www.takesat.com/display.php?testid=P001>

Correct Answer
B
E
C
A
C
C
A
C
B
D