

## Sample Questions :

These questions could appear on either test. Answers follow the last question.

1. Which of the following numbers is smallest

- A. 2.53      B.  $2\frac{2}{5}$       C.  $\frac{23}{10}$       D. 2.305      E.  $\frac{7}{3}$

2. The first-year class at Eastern State University has 2000 students. Eighty percent of these students are in-state students and 40% of the in-state students are males. How many in-state males are there in the first-year class?

- A. 1600      B. 400      C. 800      D. 640      E. 320

3. A string of decorative lights has 6 red lights for every 4 green lights. If the string contains 48 green lights, how many red lights does it contain?

- A. 12      B. 32      C. 72      D. 48      E. 54

4. Water is being added to a vat at such a rate that,  $D$ , the depth, in inches, of the water in the vat at time  $t$ ,

measured in minutes, is given by the formula  $D = \frac{2}{5}T + 4$ . How deep is the water in the vat at time  $T = 8$  minutes?

- A.  $7\frac{1}{5}$       B.  $5\frac{4}{5}$       C. 4      D.  $12\frac{2}{5}$       E.  $2\frac{4}{5}$

5. A bowl contains 8 apples, 10 oranges, and 12 pears. One piece of fruit is selected at random from this bowl. What is the probability that the piece of fruit selected is an orange?

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

6. If  $5x + 8 = 28$  then  $x$  is equal to

- A.  $\frac{36}{5}$       B. 4      C. 20      D. 15      E. 31

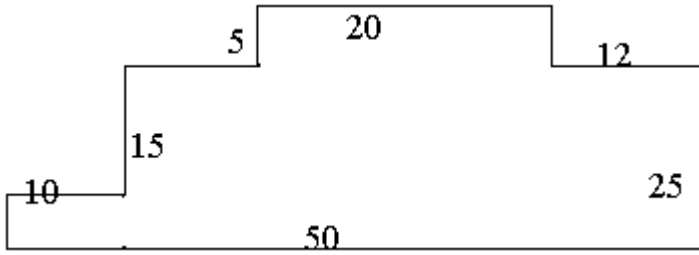
7.  $2\frac{1}{3} \times 3\frac{1}{2} =$

- A.  $6\frac{1}{6}$       B.  $5\frac{5}{6}$       C.  $8\frac{1}{6}$       D.  $6\frac{5}{6}$       E.  $\frac{2}{3}$

8.  $42 - 6^2/2 =$

- A. 3      B. 24      C. 338      D. 50      E. -24

9. What is the perimeter of the figure shown below.



- A. 80      B. 110      C. 137      D. 160      E. 1500

10. A hotel charges \$120 per day for a room, plus the occupancy tax which is 15%. If these are all of the charges, what does this room cost for one day?

- A. \$18.00      B. \$102.00      C. \$135.00      D. \$138.00      E. \$180.00

**The following questions would only appear on the test that required the use of a calculator.**

11. Which of the following is the best approximation for  $(1.06)^5$ .

- A. 1.30      B. 1.34      C. 5.30      D. 8.00      E. 10.49

12. Which of the following is the best approximation for  $7 - \frac{1}{5 - \sqrt{2}}$

- A. -.214      B. 5.386      C. 6.721      D. 1.673      E. 6.093

13. It takes 8 gallons of fuel to keep a motor running for 2.5 hours. If 20 gallons of fuel are available, how long can the motor be kept running?

- A. 64 hours      B. 8 hours      C. 6 hours 25 minutes      D. 6 hours 15 minutes      E. 1 hour

14. A survey is sent to 650 people. 72% of these people returned the survey. How many people returned this survey?

- A. 468      B. 72      C. 578      D. 47      E. 903