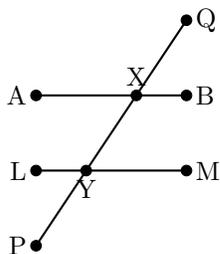
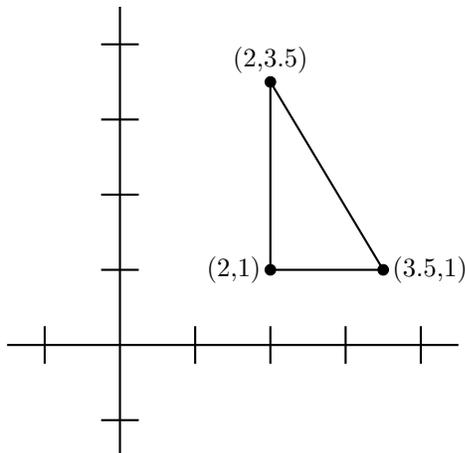


- What is the value of  $\frac{2 \cdot 3 \cdot 17}{7 \cdot 9 \cdot 13} \cdot \frac{5 \cdot 9 \cdot 14}{2 \cdot 3 \cdot 17}$ ?  
 (A) 1 (B) 0 (C)  $\frac{10}{13}$  (D) 23 (E)  $\frac{13}{10}$
- Line  $\overline{PQ}$  intersects lines  $\overline{AB}$  and  $\overline{LM}$  at  $X$  and  $Y$ , respectively. Angle  $QYM$  is 45 degrees. What is the measure of angle  $QXA$ ?

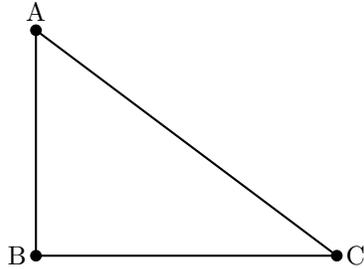


- (A) 45 (B) 90 (C) 60 (D) 135 (E) 180
- What is the area of the triangle in the coordinate grid shown? Express your answer as a decimal to the nearest thousandth.

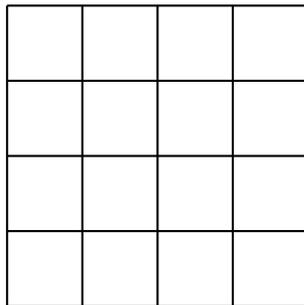


- (A) 1.875 (B) 2.625 (C) 2.375 (D) 1.625 (E) 2.145
- How many whole numbers between 200 and 600 contain the digit 5?  
 (A) 124 (B) 135 (C) 146 (D) 157 (E) 168
  - The arithmetic mean of the ages of 15 students is 13.8. If 4 of those students are of 15 years of age, then what is the mean of the ages of the other 11 students? Express your answer as a decimal to the nearest tenth.  
 (A) 13.8 (B) 12.3 (C) 13.4 (D) 12.6 (E) 14.7
  - What does  $2 + 4 + 6 + \dots + 96 + 98 + 100$  equal?  
 (A) 2551 (B) 2550 (C) 1275 (D) 1276 (E) 2480

7. On the map shown, a train leaves from station A at the same time as another train does from station C. The two trains reach station B at the same time. The train from A traveled at 60 mph and the train from C traveled at 80 mph. In miles per hour, what is the speed that a third train must travel at to go from A to C if the trip takes the same amount of time as the first two trains?



- (A) 120 (B) 100 (C) 70 (D) 40 (E) 200
8. Sam bought a book for \$60. The cashier informed Sam that the book was on a discount of 20% and that tax would be added after the discount was taken off. What percent tax would Sam have paid if the total cost was \$49.92?
- (A) 4% (B) 5% (C) 6% (D) 7% (E) 8%
9. How many Xs can be placed in the grid below if there is no more than one X in each small square and there are no 4 Xs placed horizontally, vertically, or diagonally?



- (A) 8 (B) 9 (C) 10 (D) 11 (E) 12
10. 27 small cubes with sides of 1 unit are joined together into a larger with sides of 3 units. The large cube is then painted yellow on all 6 sides. Afterwards, the cube is split into the original 27 smaller cubes. What is the probability that a randomly picked small cube is painted on more than 1 side?
- (A)  $\frac{8}{27}$  (B)  $\frac{2}{3}$  (C)  $\frac{4}{9}$  (D)  $\frac{20}{27}$  (E)  $\frac{7}{27}$