

## Practice Pascal Number 4

- The value of  $\frac{a + 2a + 3a + 4a}{3a + 6a + 9a + 12a}$  when  $a = -3$  is  
a) 3   b)  $\frac{-1}{3}$    c)  $-3$    d)  $\frac{1}{3}$    e)  $\frac{3}{10}$
- Peter has an annual salary of \$ 20000. His boss Ian first decreases his salary by 20% and then later decides to increase the resulting salary by 25%. Peter's net change in salary is  
a) \$1000   b) \$2000   c)  $-\$1000$    d) \$0   e)  $-\$2000$
- The sum of 5 consecutive odd positive integers is 135. What is the smallest of these integers?  
a) 19   b) 21   c) 23   d) 25   e) 27
- If 75% of a number is 90, what is 50% of the same number?  
a) 45   b) 60   c) 75   d) 80   e) 120
- Triangle  $XYZ$  is right angled at  $Y$  with  $XZ = 20$  and  $XY = 12$ . If  $M$  is the midpoint of  $YZ$  determine  $XM$   
a)  $\sqrt{80}$    b)  $\sqrt{208}$    c)  $\sqrt{160}$    d)  $\sqrt{128}$    e)  $\sqrt{180}$
- Peter's average mark after 10 tests is 85%. He is allowed to drop his lowest test mark, which is 58%, before calculating his final average mark for tests. If all tests are weighted equally, what will this final average mark be?  
a) 86%   b) 88%   c) 90%   d) 92%   e) 94%
- A single die, with faces labeled from 1 to 6, is rolled twice. What is the probability that the difference (larger value minus the smaller value) between the 2 rolls is less than 3?  
a)  $\frac{1}{6}$    b)  $\frac{5}{12}$    c)  $\frac{1}{2}$    d)  $\frac{7}{12}$    e)  $\frac{2}{3}$
- A set of five integers has an average of 20. The median of the set is 22, but the mode is 26. What is the smallest integer possible in the set?  
a) 1   b) 3   c) 5   d) 7   e) 9
- Omar has a total of 80 coins, each of which is either a nickel or a quarter. If he has exactly \$13.00 in change, how many more quarters than nickels does he have?  
a) 4   b) 6   c) 8   d) 10   e) 12
- Two boys are  $\frac{7}{8}$  of the way through a railway tunnel when a train is seen to approach the tunnel from the end to which they are closer. If each boy runs at 15 km/h, one towards either end of the tunnel, both boys will barely escape the onrushing train by the smallest possible margin. How fast is the train moving?  
a) 20 km/h   b) 24 km/h   c) 30 km/h   d) 36 km/h   e) 40 km/h