**Practice Test 1**

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1. A particular stock is valued at $40 per share. If the value increases by 20 percent and then decreases by 25 percent, what will be the value of the stock per share after the decrease?

Answer:

* Value after increase = 1.2 \* 40 = $48
* Value after decrease = 0.75 \* 48 = **$36**

1. When a positive integer is divided by 3, the remainder is 2 and when n is divided by 5, the remainder is 1. What is the least possible value of n?

Answer:

* Let the number be N, so it can be represented as
* N = 3n1 + 2 -> n1 = (N-2)/3 {Where n1 is integer}
* N = 5n2 + 1 -> n2 = (N-1)/5 {Where n2 is integer}
* n1 – n2 = (N-2)/3 - (N-1)/5 = (2N–7)/15
* Since n1 and n2 are both integers n1 – n2 is also an integer, Let it be x
* x = (2N–7)/15 -> N = (15x+7)/2
* Because N has to be an integer, x can only take odd values
* Put x = 1 and get N = **11**
* Alternatively, you can just do trial and error; however the above method not only gives you 1st term but all terms.

1. A theater sells children’s tickets for half the adult ticket price. If 5 adult tickets and 8 children’s tickets cost a total of $27, what is the difference between the price of an adult and children’s tickets?

Answer:

* Let price of adult ticket be x, cost of children’s ticket is x/2
* 5x + 8(x/2) = 27
* x = 3; x/2 = 1.5
* Solution: 3 – 1.5 = **$1.5**

1. Pat invested a total of $ 3,000. Part of the money was invested in a money market account that paid 10 percent simple annual interest, and the remainder of the money was invested in a fund that paid 8 percent simple annual interest. The interest earned at the end of the first year from these investments was $256

Answer:

* Let the money invested at 10 % interest be x
* Money invested at 8 % interest = 3000-x
* Total interest after 1 year = x\*10/100 + (3000-x)\*8/100 = 256
* x = 800
* Quantity A = x = 800; Quantity B = (3000-x) = 2200
* Solution: **B**

1. Two cars started from the same point and traveled on a straight course in opposite directions for exactly 2 hours, at which time they were 208 miles apart. If one car traveled, on an average 8 miles per hours faster than the other car, what was the average speed in mph, of the faster car for the 2-hour trip

Answer:

* Let speed of slower car be x
* Speed of faster car = x+8
* Distance traveled by slower car in 2 hrs. = 2x
* Distance traveled by faster car in 2 hrs. = 2(x+8)
* Separation between the 2 cars = 2x + 2(x+8) = 208
* x = 48; (x+8) = 56
* Solution = **56**

1. Quantity A: 7w-4; Quantity B: 2w+5 For w > 1

Answer:

* Since we only know w is greater than 1, but we don’t know if w is less or greater than 9/5….
* Solution: **D – Can’t be determined**

1. Quantity A: (230 – 229)/2 Quantity B: 228

Answer:

* Solution: **C – Equal**

1. Quantity A: PS; Quantity B: SR For PQ = PR

Answer:

* Since no information about point S or Segment QS is given, we cannot draw any inference about segment PS and SR
* Solution: **D – Can’t be determined**

1. Quantity A: (3y+2)/5; Quantity B: y For y > 4

Answer:

* {Since we know y is greater than 4, it will always be greater than 1}
* Solution: **B – Quantity B is greater**

1. Among the students in this trial who studied less than 25 hours, what is the highest GRE Quant Score achieved?

Answer:

* Look for point that has highest y co-ordinate and it’s x co-ordinate is less than 25 hrs.
* Solution: **C. 154**

1. For the students in this trial with the three highest scores, approximately what is the average number of hours they spend studying?

Answer:

* Find 3 points whose y co-ordinate are greatest and find the average of the x co-ordinates of those 3 points.
* (28+45+44)/3 = **39**

1. Among the students in this trial who studied for 20 hours or more, what fraction of hem performed worse than expected, according to the best fit line model? Express your answer as a fraction.

Answer:

* Numerator: number of points that have x co-ordinate more than 20 and are below the best fit line.
* Denominator: number of points that have x co-ordinate more than 20.
* Solution: **3/10**

1. Quantity A: x2 + 1; Quantity B: 2x-1

Answer:

* As lowest possible value of LHS is 0 because the term is squared
* Solution: **A – Quantity A is greater**

1. Quantity A: The area of the shaded region; Quantity B: 36

Answer:

* Area of the shaded region = ½ \* 6 \* 12 = 36
* Solution: **C - Equal**

Answer:

Answer:

Answer:

Answer:

Answer:

Answer: