

Powerprep Plus 1 Quant Set 1 Answers

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1) D

SET 1

Correct rate: 83%

Difficulty: easy

$$125n = 215(n - 1)$$

$$125n = 215n - 215$$

$$215 = 215n - 125n$$

$$215 = 215n - 125n$$

$$215 = 90n$$

$$n = 2.38$$

2) A

SET 1

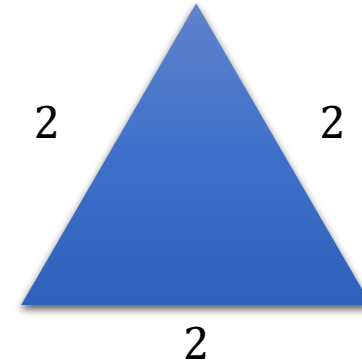
Correct rate: 89%

Difficulty: easy



$$\sqrt{2^2 + 2^2} = 2\sqrt{2}$$

$$A = \frac{bh}{2} = \frac{2 \times 2}{2} = 2$$



$$A = \frac{\sqrt{3}}{4} a^2 = \frac{\sqrt{3}}{4} 2^2 = \sqrt{3} = 1.7$$

3) A

SET 1

Correct rate: 63%

Difficulty: easy

$$x^2 = d^2 + c^2 - 2dc \cos \alpha$$

$$x^2 = d^2 + c^2 - 2dc \cos 75^\circ$$

$$y^2 = d^2 + c^2 - 2dc \cos \alpha$$

$$y^2 = d^2 + c^2 - 2dc \cos 65^\circ$$

$$0 < \cos 75^\circ < \cos 65^\circ < 1 \Rightarrow x > y$$

4) C

SET 1

Correct rate: 92%

Difficulty: easy

45, 90, 135, 180, 225, 270

5) B

SET 1

Correct rate: 92%

Difficulty: easy

6) D

SET 1

Correct rate: 65%

Difficulty: easy

$$-10 < x + y < 20$$

$$5 < x < 10$$

$$Y = -15 \Rightarrow -10 < x - 15 < 20$$

$$5 < x < 35$$

$$X = 6$$

$$Y = -17$$

$$X = 9$$

$$Y = -20$$

$$X = 5.5$$

$$Y = -14.7$$

$$\text{if } x = 5.1, -14.9 < y < 15.1$$

$$\text{if } x = 9.9, -19.9 < y < 10.1$$

7) B

SET 1

Correct rate: 81%

Difficulty: easy

$$\sqrt{R} = \sqrt{2^{16} \times 5^{34} \times N^{50}}$$

$$\sqrt{R} = 2^8 \times 5^{17} \times N^{25}$$

$$\frac{R}{10} = 2^{15} \times 5^{16} \times N^{25}$$

8) C

SET 1

Correct rate: 85%

Difficulty: easy

$$2s=r+t$$

$$s=\frac{r+t}{2}$$

s

9) D

SET 1

Correct rate: 94%

Difficulty: easy

$$\frac{(100-20)}{100} \times \frac{(100-15)}{100} = \frac{68}{100} = 68\%$$

10) C

SET 1

Correct rate: 93%

Difficulty: easy

$$A = 2\pi rh = 2\pi 4 \times 20 = 502.4 \cong 500$$

11) A,B,D SET 1

Correct rate: 65%

Difficulty: easy

$$5+5+5+10=25$$

$$1+5+10+10=26$$

$$1+1+1+25=28$$

12)2

SET 1

Correct rate: 93%

Difficulty: easy

$$\frac{x+1}{6x} + \frac{x+1}{2x} = 1$$

$$\frac{x+1}{6x} + \frac{3x+3}{6x} = 1$$

$$x = 2$$

13)A

SET 1

Correct rate: 91%

Difficulty: easy

we can see the pattern for the question. s.d of first set is 4.

and second set is increased by addition 9.

we know that addition and subtraction to any sets makes standard deviation to be constant. that is why answer is 4

14)B

SET 1

Correct rate: 91%

Difficulty: easy

$$2050 + 3 \times \frac{1}{2} (2050 - 1800) = 2425$$

15)A

SET 1

Correct rate: 80%

Difficulty: easy

Range of earnings : $40 - 5 = 35$

Annual earning in 2010 = 15

Annual earning in 2015=40

Annual sales in 2010 = 1400

Annual sales in 2015 = 2050

16)D

SET 1

Correct rate: 81%

Difficulty: easy

$$\frac{40}{2} - 15 = 5$$
$$\frac{5}{15} \cong 0.33$$

17)A

SET 1

Correct rate: 91%

Difficulty: easy

$$\frac{7}{11} \times \frac{1}{4} = \frac{7}{44}$$

18)B

SET 1

Correct rate: 95%

Difficulty: easy

$$2\pi r = 6$$

$$\pi r = 3$$

$$\pi^2 r^2 = 9$$

$$\pi r^2 = \frac{9}{\pi}$$

19)A

SET 1

Correct rate: 80%

Difficulty: easy

$$-c = -1/2c + 3 \Rightarrow 1/2c = -3 \Rightarrow c = -6.$$

20)35

SET 1

Correct rate: 64%

Difficulty: easy

$$|A \cup B| = |A| + |B| - |A \cap B|$$

$$75 + 60 - 100 = 35$$



Thanks