

QNo:- 97 ,Correct Answer:- 10

Explanation:- $N^N = 2^{160} = 2^5 \times 32 = (2^5)^{32}$

$$N^N = 32^{32};$$

$$N = 32;$$

$$N^2 + 2^N = 32^2 + 2^{32};$$

$$(2^5)^2 + 2^{32}$$

$$2^{10} + 2^{32} = 2^{10}(1 + 2^{22});$$

x is 10

QNo:- 98 ,Correct Answer:- A

Explanation:- Let the total efficiencies be R and G

$$\text{Total Work} = 16(R + G) = 7(R+G) + (0.7R+G)*10$$

$$9(R+G) = 7R+10G$$

$$2R = G$$

$$R/G = 1/2$$

Remaining 9 day's work when Ramesh got sick = $9 \times 3 = 27$ units

If this 27 units done by Ganesh with efficiency of 2 he will take $27/2 = 13.5$ days.

QNo:- 99 ,Correct Answer:- 50

Explanation:- Let the speeds of A and B be s_1 and s_2 respectively. The initial distance between them is 350 km. When they travel in the same direction, the time taken to meet = $350/s_2 - s_1 = 7 \Rightarrow s_2 - s_1 = 350/7 = 50$ km/hr

QNo:- 100 ,Correct Answer:- D

Explanation:- Ratio of Alcohol in the mixture = $700 / 875 = 4/5$

Applying processes, ratio of alcohol becomes = $4/5 * 9/10 * 9/10 = .648$ or 64.8 % Percentage of water = 35.2 %