

Day-6 (3-08-18)
Key/Solutions

Class 6th

Mathematics :

Sol : Let the required numbers be $7x$ and $8x$.

$$\text{Then } \frac{7x+3}{8x+8} = \frac{3}{4} \text{ Ans : 21, 24}$$

Physics: Ans : (A)

Chemistry: Ans : (C)

Biology: Ans : (D)

Class 7th

Mathematics :

Sol : (i) ± 9 (ii) ± 1

Physics:

$$\begin{aligned} \text{sol : } 1\text{ly} &= 9.46 \times 10^{15} \text{ m} \\ 9.46 \times 10^{15} \text{ m} &= 1\text{ly} \\ &= 1.057 \times 10^{-16} \text{ly} \end{aligned}$$

Chemistry:

Ans: (B)

Biology:

Ans : (B)

Class 8th

Mathematics : Ans : (A)

$$\text{Sol: } \tan A = \frac{4}{3}, \sin A = \frac{-4}{5}, \cos A = \frac{-3}{5} \text{ and } \sin 2A = 2\sin A \cos A$$

Physics:

$$\begin{aligned} \text{Distance} &= 10^{25} \text{ m, speed } c = 3 \times 10^8 \text{ m/s} \\ &= 0.33 \times 10^{17} \text{ s } 10^9 \times 10^{17} \text{ s (Since } 0.33 <) \\ &= 10^{17} \text{ s} \end{aligned}$$

Chemistry: Ans: (C)

Biology: Ans : (A)

Class 9th

Mathematics : Ans : (D)

Sol : If $\sin\theta_1 = \sin\theta_2 = \sin\theta_3 = 1$

$$\sin\theta_1 = \sin 90^\circ$$

$$\theta_1 = \theta_2 = \theta_3 = 90^\circ$$

Physics:

Sol: A = 20 N at 53° a.h.
B = 15 N at 160° a.h.
C = 19 N at 195° a.h. or C = 19 N at 165° b.h.
D = 25 N at 303° a.h. or D = 25 N at 57° b.h.

Chemistry: Ans : (D)

Biology: Ans : (D)

Class 10th

Mathematics : Ans : (D)

Sol : $\sin x = \cos^2 x$

$$\sin^2 x = \cos^4 x$$

$$(\cos^4 x + \cos^2 x)^2$$

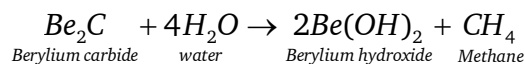
$$(1)^2 = 1$$

Physics:

Ice candy feels colder than water at 0°C, because it can extract more heat (336 KJ) from mouth compared to water at 0°C.

Chemistry:

Sol : On balancing the given equation,



Hence, X=4 and Y=2

Biology: Ans : (B)

Reasoning :

Ans : (B) 125