

CHAPTER 06**Progressions****Example:**

In a G.P the 3rd term is 24 and 6th term is 192. Find the 10th term.

Sol.

Here, $a_3 = ar^2 = 24$ (1)

$$a_6 = ar^5 = 192$$
 (2)

Now,

$$\frac{(2)}{(1)} \Rightarrow \frac{\cancel{ar^5}}{\cancel{ar^2}} = \frac{\cancel{192}}{\cancel{24}} = 8$$

$$\Rightarrow r^3 = 8 = (2)^3$$

$$\Rightarrow r = 2$$

Substituting $r = 2$ in (1), we get $a = 6$.

$$\therefore a_{10} = ar^9 = 6 (2)^9 = 3072.$$