Q:Find a GP for which sum of the first two terms is -4 and the fifth term is 4 times the third term.
Solution: Let the GP be $a, ar^2, ar^3, ...ar^(n-1)$
Given:

$$a + ar = -4 \tag{1}$$

$$ar^4 = 4 * ar^2 \tag{2}$$

On solving the 2nd equation
We get

$$r^2 = 4$$
$$r = +2, -2$$

on substituting value of r in eq(1)

For r=+2
we get $a = \frac{-4}{3}$

GP: $\frac{-4}{3}, \frac{-8}{3}, \frac{-16}{3}$,....

For r=-2
we get a=4

GP:$4, -8, 16, -32, ...$