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|-----------|----------|--|----------|
| 12 | 2 | The point P divides the interval from $A(-2, 2)$ to $B(8, -3)$ internally in the ratio 3:2. What is the x co-ordinate of P ? (A) 4 (B) 2 (C) 0 (D) -1 | 1 |
|-----------|----------|--|----------|

A

$$\begin{aligned}P(x, y) &= \left(\frac{3(8) + 2(-2)}{3 + 2}, \frac{3(-3) + 2(2)}{3 + 2} \right) \\&= \left(\frac{20}{5}, \frac{-5}{5} \right) \\&= (4, -1)\end{aligned}$$

\therefore the x co-ordinate is 4.

State Mean:
0.91

* These solutions have been provided by [projectmaths](http://projectmaths.com.au) and are not supplied or endorsed by the Board of Studies