2016 11 e Find the points of intersection of $y = -5 - 4x$ and $y = 3 - 2x - x^2$. **3**

$y = -5 - 4x$ …..①

$y = 3 - 2x - x^2$ …..②

Let ① = ②:

$-5 - 4x = 3 - 2x - x^2$

$x^2 - 2x - 8 = 0$

$(x - 4)(x + 2) = 0$

$x = 4, -2$

Subs in ① :

$y(4) = -5 - 4(4)$

$= -21$

$y(-2) = -5 - 4(-2)$

$= 3$

$\therefore$ (4, –21) and (–2, 3).

State Mean: **2.55**

BOSTES: Notes from the Marking Centre

This information is released by BOSTES in late Term 1 2017.