

Maths Mock

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pg 1 of 4

① i) $x^2 + 8x + 15 = 0$ $5 + 3 = 8$ $5 \times 3 = 15$

$\Rightarrow (x+5)(x+3) \therefore \boxed{x = -5, x = -3}$

ii) $x^2 - 225 = 0$ $15 + -15 = 0$ $15 \times -15 = -225$

$\Rightarrow (x+15)(x-15) \therefore \boxed{x = 15, x = -15}$

iii) $x^2 + 11x + 30 = 0$ $5 + 6 = 11$ $5 \times 6 = 30$

$\Rightarrow (x+5)(x+6) \therefore \boxed{x = -5, x = -6}$

iv) $x^2 - 6x + 8 = 0$ $-4 + -2 = -6$ $-4 \times -2 = 8$

$\Rightarrow (x-4)(x-2) \therefore \boxed{x = 4, x = 2}$

v) $2x^2 + 9x + 7 = 0$

	$2x$	7
x	$2x^2$	$7x$
1	$2x$	7

$\Rightarrow (2x+7)(x+1) \therefore \boxed{x = -3.5, x = -1}$

② $12x^2 + 5x = 7$

$\Rightarrow 12x^2 + 5x - 7 = 0$

$\Rightarrow \frac{-5 \pm \sqrt{25 - (4 \times 12 \times -7)}}{24}$

$\Rightarrow \frac{-5 \pm \sqrt{361}}{24} \Rightarrow \boxed{x = 0.58, x = -1.00}$