

Time: 3:40

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03/11/20
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3) Solve the following quadratic equations by using the factoring method

$$i) x^2 + 10x + 21 = 0$$

$$(x+7)(x+3)$$
$$x^2 + 7x + 3x + 21$$
$$10x$$

$$7 \times 3 = 21$$
$$3+7 = 10$$

$$x+7=0 \quad x+3=0$$
$$x=-7 \quad x=-3$$

$$ii) x^2 - 3x + 2 = 0$$

$$(x-2)(x-1)$$

$$2 \times 1 = 2$$
$$2+1 = 3$$

$$x-2=0 \quad x-1=0$$
$$x=2 \quad x=1$$

$$iii) x^2 + 12x + 20 = 0$$
$$(x+10)(x+2)$$

$$10 \times 2 = 20$$
$$10+2 = 12$$

$$x+10=0 \quad x+2=0$$
$$x=-10 \quad x=-2$$

$$iv) x^2 - 64 = 0$$

$$64 \div 2 = 32$$

$$x+32=0$$

$$x=-32$$