

Key

KNOWLEDGE CHECK

Factor the Following:

1. $2x^2 - 9x - 18$ $(2x+3)(x-6)$

2. $15x^2 + x - 28$ $(3x-4)(5x+7)$

3. $36x^3 + 78x^2 - 48x$ $6x(3x+8)(2x-1)$

4. $70x^2 - 462x - 196$ $14(5x+2)(x-7)$

Keep Going...

5. $18x^2 + 39x - 7$ $(3x+7)(6x-1)$

6. $2x^3 - 10x^2 - 72x$ $2x(x+4)(x-9)$

And again....

7. $8x^2 - 72$



$8(x-3)(x+3)$

8. $30x^2 - 41x + 7$

$(5x-1)(6x-7)$

- Knowledge Test -

1). $(2x+3)(x-6)$

$$2x^2 + 3x - 12x - 18$$

$$2x^2 - 9x - 18$$

2). $(3x-4)(5x+7)$

$$15x^2 - 20x + 21x - 28$$

$$15x^2 + x - 28$$

3). $3x(4x-2)(3x+8)$

$$3x(12x^2 - 6x + 32x - 16)$$

$$36x^3 - 18x^2 + 96x^2 - 48x$$

$$3x(12x^2 - 6x + 32x - 16)$$

$$36x^3 + 78x^2 - 48x$$

$$6x(3x+8)(2x-1)$$

$$14(5x+2)(x-7)$$

4). $7(10x+4)(x-7)$

$$7(10x^2 + 4x - 70x - 28)$$

$$70x^2 - 448x - 196$$

$$-462x$$

$$7(10x^2 + 4x - 70x - 28) \rightarrow 7(10x^2 - 66x - 28)$$

5). $(3x+7)(6x-1)$

$$18x^2 + 42x - 3x - 7$$

$$18x^2 + 39x - 7$$

6). $2x(x+4)(x-9)$

$$2x(x^2 + 4x - 9x - 36)$$

$$2x^3 - 10x^2 - 72x$$

7). $4(2x-6)(x+3)$

$$4(2x^2 - 6x + 6x - 18)$$

$$8x^2 - 72$$

8). $(5x-1)(6x-7)$

$$30x^2 - 6x - 35x + 7$$

$$30x^2 - 41x + 7$$

$$2x^2 - 18$$

$$\frac{36}{6}$$