

Bellwork:

What does it mean
to factor?

Sep 25-7:26 AM

ex. $6x + 3$

$$3(2x + 1)$$

Sep 25-7:43 AM

ex. $x^2 + \underline{3}x \ominus \underline{18}$ $a=1$

$$(x - 3)(x + 6)$$

$$x^2 + 6x - 3x - 18$$

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

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ex. $x^2 - \underline{22}x \ominus \underline{75}$

$$(x - 25)(x + 3)$$

$$\begin{array}{r} 75 \\ \hline \end{array}$$

Sep 25-7:53 AM

ex. $x^2 - \underline{8x} \oplus \underline{15}$

$$(x - 5)(x - 3)$$

Sep 25-7:56 AM

ex. $x^2 - \underline{5xy} \ominus \underline{6y^2}$

$$(x - 6y)(x + 1y)$$

Sep 25-7:58 AM

ex. $5n^2 + 17n + 6$

$$\begin{array}{r} 5 \overline{) 17} \\ 15 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 6 \overline{) 17} \\ 12 \\ \hline 5 \end{array}$$

Rainbow

$$\begin{array}{r} 3.0 \\ 15 \overline{) 45} \\ 45 \\ \hline 0 \end{array}$$

$$(5n + 2)(n + 3)$$

Sep 25-8:00 AM

ex. $12y^2 + 7y + 1$

$$\begin{array}{r} 1 \overline{) 12} \\ 12 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 1 \overline{) 7} \\ 7 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 12 \\ 3 \overline{) 36} \\ 36 \\ \hline 0 \end{array}$$

$$(3y + 1)(4y + 1)$$

Sep 25-8:07 AM

ex.

$$6x^4 - 7x^2 - 20$$

$\frac{1}{2} \overline{) 6}$
 $\frac{2}{3} \overline{) 20}$

$\frac{1}{2} \overline{) 20}$
 $\frac{2}{4} \overline{) 10}$
 $\frac{4}{5} \overline{) 5}$

$\frac{1}{12} \overline{) 120}$
 $\frac{2}{2} \overline{) 10}$
 $\frac{4}{4} \overline{) 60}$
 $\frac{5}{5} \overline{) 30}$
 $\frac{8}{8} \overline{) 24}$
 $\frac{15}{15} \overline{) 15}$

$(2x^2 - 5)(3x^2 + 4)$

Sep 25-8:10 AM

ex. $15x^2 - 28x - 32$

$\frac{1}{3} \overline{) 15}$
 $\frac{3}{5} \overline{) 5}$

$\frac{1}{2} \overline{) 32}$
 $\frac{2}{4} \overline{) 16}$
 $\frac{4}{8} \overline{) 8}$

$\frac{4}{48} \overline{) 10}$
 $\frac{12}{12} \overline{) 40}$

$(5x + 4)(3x - 8)$

Sep 25-8:15 AM

ex. $x^2 - 1$

$$x^2 + 0x - 1 = (x+1)(x-1)$$

$$x^2 - 25 = (x+5)(x-5)$$

$$a^2 - b^2 = (a-b)(a+b)$$

$$4x^2 - 9$$

$$(2x)^2 - 3^2$$

$$(2x+3)(2x-3)$$

Sep 25-8:23 AM

ex. $4x^2 - 16$

$$4(x^2 - 4)$$

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

$x^4 - 16$

$$(x^2)^2 - 4^2$$

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

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

↓

$$x^2 + 0x + 4$$

Sep 25-8:26 AM

1) $2x^2 + 8x$

6) $x^2 + 16x - 36$

2) $x^2 - 16$

7) $2x^2 - 5x - 3$

3) $2x^2 - 8$

8) $4y^2 + 8y + 3$

4) $x^2 + 6x + 8$

9) $9y^2 + 6y - 8$

5) $x^2 - 3x - 40$

10) $8a^2 - 10a + 3$

Sep 25-8:30 AM