

Factoring Review

Factor completely:

Example 1:

$$x^2 + 5x + 6 = (x+2)(x+3)$$

$1 \cdot 6 = 6$ $1+6=7$
 $2 \cdot 3 = 6$ $2+3=5$
 $-1 \cdot -6 = 6$ $-1+6=5$
 $-2 \cdot -3 = 6$ $-2+3=1$

Example 2:

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

Example 3:

$$2x^2 + 10x + 12 = 2(x^2 + 5x + 6) = 2(x+2)(x+3)$$

all divisible by 2

Same as Ex 1

Example 3:

$$x^2 - 9 = (x+3)(x-3)$$

- ① $x^2 - 64$
- ② $x^2 - 2x - 48$
- ③ $x^2 + 18x + 65$
- ④ $x^2 + 17x + 72$
- ⑤ $x^2 + 5x + 26$
- ⑥ $x^2 + 15x + 56$
- ⑦ $x^2 - 25$
- ⑧ $x^2 - 12x - 45$
- ⑨ $x^2 + 8x - 9$
- ⑩ $x^2 - 4x - 165$
- ⑪ $x^2 + 2x - 15$
- ⑫ $x^2 + 10x - 24$
- ⑬ $x^2 + 18x + 56$
- ⑭ $x^2 + 12x + 36$
- ⑮ $x^2 - 6x - 72$
- ⑯ $2x^2 - 16x + 14$
- ⑰ $3x^2 + 27x - 66$
- ⑱ $x^2 - 10x + 16$
- ⑲ $x^2 - 19x + 60$
- ⑳ $x^2 + 11x - 12$
- ㉑ $4x^2 - 40x + 64$
- ㉒ $x^2 - 5x - 150$
- ㉓ $x^2 - 21x + 104$
- ㉔ $6x^2 + 6x - 12$
- ㉕ $2x^2 - 32x + 30$

- ⑳ $x^2 - 18x + 56$
- ㉑ $3x^2 + 6x - 45$
- ㉒ $x^2 - 4x - 5$
- ㉓ $x^2 + 12x + 32$
- ㉔ $x^2 - 9x - 90$
- ㉕ $x^2 + 11x - 26$
- ㉖ $2x^2 + 16x + 30$
- ㉗ $x^2 + 20x + 91$
- ㉘ $x^2 + 18x + 77$
- ㉙ $x^2 - 8x - 20$
- ㉚ $x^2 + 12x + 27$
- ㉛ $3x^2 - 30x + 27$
- ㉜ $x^2 + 6x - 40$
- ㉝ $4x^2 + 5x$
- ㉞ $2x^2 - 50$
- ㉟ $x^2 + 6x - 112$
- ㊱ $x^2 - 23x + 130$
- ㊲ $x^3 - 11x^2 - 26x$
- ㊳ $2x^3 + 16x^2 - 18x$
- ㊴ $x^2 + 9x - 52$
- ㊵ $x^2 + 19x + 84$
- ㊶ $x^2 - 5x - 84$
- ㊷ $x^2 + 23x + 126$
- ㊸ $6x^4 - 6x^3 - 36x^2$
- ㊹ $4x^5 - 36x^3$