

Factoring



Keep in mind...
No one is perfect...that's why pencils have erasers.

I. Greatest Common Factor (GCF)

Find the GCF of the numbers.

$$\begin{array}{l} 18, 30 \\ 18 = 2 \cdot 3 \cdot 3 \\ 30 = 2 \cdot 3 \cdot 5 \\ 2 \cdot 3 = 6 \\ 6 = \text{GCF} \end{array}$$

1. 12, 18

5. 28, 49

2. 10, 35

6. 27, 63

3. 8, 30

7. 30, 45

4. 16, 24

8. 48, 72

II. Greatest Common Monomial Factor

Factor, write prime if prime.

$$12a^3b + 15ab^3 = 3ab(4a^2 + 5b^2)$$

1. $6x + 3$

8. $12x^2 - 9x + 15$

2. $24x^2 - 8x$

9. $3n^3 - 12n^2 - 30n$

3. $6x - 12$

10. $9m^2 - 4n + 12$

4. $2x^2 + 8x$

11. $2x^3 - 3x^2 + 5x$

5. $4x + 10$

12. $13m + 26m^2 - 39m^3$

6. $10x^2 + 35x$

13. $17x^2 + 34x + 51$

7. $10x^2y - 15xy^2$

14. $18m^2n^4 - 12m^2n^3 + 24m^2n^2$