

Name: Key Date: \_\_\_\_\_ Period: \_\_\_\_\_

Factoring using GCF  
Homework

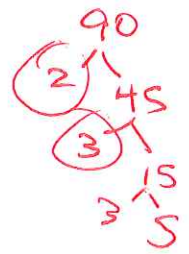
Find the GCF.

1. 12, 42, 90



$2 \cdot 3 = 6$

1. 6

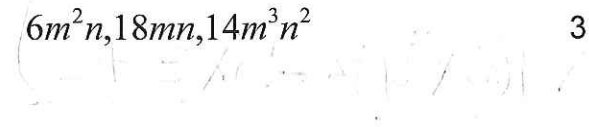


2.  $x^3, x^5, x^2$



2.  $x^2$

3.  $6m^2n, 18mn, 14m^3n^2$



3.  $2mn$

4.  $15a^3bc, 18a^5b, 14m^3n^2$

4. 1

Factor.

5.  $6x^2 + 9x + 27$

GCF: 3

5.  $3(2x^2 + 3x + 9)$

6.  $14x^3 - 21x^2 - 35x$

GCF:  $7x$

6.  $7x(2x^2 - 3x - 5)$

7.  $25x^3 - 40x^2 + 10x$

GCF:  $5x$

7.  $5x(5x^2 - 8x + 2)$

8.  $2a^2 + 12ab + 6b^2$

GCF: 2

8.  $2(a^2 + 6ab + 3b^2)$

9.  $3d^3 + d$  GCF:  $d$

9.  $d(3d^2 + 1)$

10.  $6a^4b - 10a^3b^2 - 6a^2b^3$   
GCF:  $2a^2b$

10.  $2a^2b(3a^2 - 5ab - 3b)$

11.  $\frac{-2x^2}{-2x} - \frac{-2x}{-2x}$  GCF:  $-2x$

11.  $-2x(x + 1)$

12.  $6x^3y^3z - 5x^2yz + 2xy$   
GCF:  $xy$

12.  $xy(6x^2y^2z - 5xz + 2)$

13.  $2xy - 3z$   
GCF:           

13. Prime

14.  $x^2 - 2y^2$   
GCF:           

14. Prime

Find the missing factor.

15.  $12x + 30 = (?) (2x + 5)$

15.  $6$

16.  $6z^3 + 20z^2 = (?) (3z + 10)$

16.  $2z$