

Name: Key Block: _____ Date: _____

Factoring Polynomials: Check Point #1

Find the GGF:

1. 28 and 56
28

2. $25x^2y$ and $50xy$
 $25xy$

3. $36a^3bc$ and $96ab^2$
 $12ab$

Factor Completely

4. $\frac{4a^2b}{ab} + \frac{28ab^2}{ab} + \frac{7ab}{ab}$
 $ab(4a + 28b + 7)$

5. $\frac{8bc^2}{8bc} + \frac{24bc}{8bc}$
 $8bc(c + 3)$

6. $\frac{3p^3q}{3pq} - \frac{9pq^2}{3pq} + \frac{36pq}{3pq}$
 $3pq(p^2 - 3q + 12)$

7. $\frac{12ax^3}{4x} + \frac{20bx^2}{4x} + \frac{32cx}{4x}$
 $4x(3ax^2 + 5bx + 8c)$

8. $\left(\frac{x^2}{x} + \frac{4x}{x}\right) + \left(\frac{2x}{2} + \frac{8}{2}\right)$
 $x(x+4) + 2(x+4)$
 $(x+2)(x+4)$

9. $\left(\frac{2a^2}{a} + \frac{3a}{a}\right) + \left(\frac{6a}{3} + \frac{9}{3}\right)$
 $a(2a+3) + 3(2a+3)$
 $(a+3)(2a+3)$

10. $\frac{48a^2b^2}{12ab} - \frac{12ab}{12ab}$
 $12ab(4ab - 1)$

11. $\left(\frac{12a^2}{3a} - \frac{15ab}{3a}\right) + \left(\frac{16a}{-4} + \frac{20b}{-4}\right)$
 $3a(4a-5b) - 4(4a-5b)$
 $(3a-4)(4a-5b)$

12. $\left(\frac{xa}{a} + \frac{ya}{a}\right) + \left(\frac{x}{1} + \frac{y}{1}\right)$
 $a(x+y) + 1(x+y)$
 $(a+1)(x+y)$

13. $\left(\frac{2wx}{2w} + \frac{10w}{2w}\right) + \left(\frac{7x}{7} + \frac{35}{7}\right)$
 $2w(x+5) + 7(x+5)$
 $(2w+7)(x+5)$