

Name: .....

Date: ..... Score: .....

## Factoring Polynomials

Factor each of the following polynomials

1  $-3k^3 + 15k^2 - 6k$

2  $64 + 40y^2 + 72y$

3  $ay + ax - yx - x^2$

4  $3x^3y + 18x^2y - 21xy$

5  $3t^2 + 10t - 48$

6  $x^2(x^2 - 5) + 6(x^2 - 5)$

7  $8a^2b^4 - 28a^3b^3 + 4a^2b^2$

8  $-90y^5 + 100y + 60$

9  $2g^2 - 7g - 4$

10  $y^3 + y^2 + 2y + 2$

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Factor each of the following polynomials

1  $-3k^3 + 15k^2 - 6k$

$\frac{3k(-k^2 + 5k - 2)}{\quad}$

3  $ay + ax - yx - x^2$

$\frac{(y + x)(a - x)}{\quad}$

5  $3t^2 + 10t - 48$

$\frac{(3t - 8)(t + 6)}{\quad}$

7  $8a^2b^4 - 28a^3b^3 + 4a^2b^2$

$\frac{4a^2b^2(2a^2b^2 - 7ab + 1)}{\quad}$

9  $2g^2 - 7g - 4$

$\frac{(2g + 1)(g - 4)}{\quad}$

2  $64 + 40y^2 + 72y$

$\frac{8(8 + 5y^2 + 9y)}{\quad}$

4  $3x^3y + 18x^2y - 21xy$

$\frac{3xy(x + 7)(x - 1)}{\quad}$

6  $x^2(x^2 - 5) + 6(x^2 - 5)$

$\frac{(x^2 - 5)(x^2 + 6)}{\quad}$

8  $-90y^5 + 100y + 60$

$\frac{10(-9y^5 + 10y + 6)}{\quad}$

10  $y^3 + y^2 + 2y + 2$

$\frac{(y^2 + 2)(y + 1)}{\quad}$