

## Unit 6, Quiz - Multiply Poly, Factoring Trinomials

Date

1-17-19

Period

Find each product.

1)  $(-4x + 5)^2$

$$(-4x + 5)(-4x + 5)$$

$$16x^2 - 20x - 20x + 25$$

$$16x^2 - 40x + 25$$

2)  $(-3x + 8)^2$

$$(-3x + 8)(-3x + 8)$$

$$9x^2 - 24x - 24x + 64$$

$$9x^2 - 48x + 64$$

3)  $(n - 4)(n + 4)$

$$n^2 + 4n - 4n - 16$$

cancel

$$n^2 - 16$$

4)  $(4n - 7)(4n + 7)$

$$16n^2 + 28n - 28n - 49$$

$$16n^2 - 49$$

Factor the common factor out of each expression.

5)  $36k^4 - 30k + 30$

$$\frac{36k^4}{6} - \frac{30k}{6} + \frac{30}{6}$$

$$6(6k^4 - 5k + 5)$$

6)  $-6v^2 + 30v + 15$

$$-\frac{6v^2}{3} + \frac{30v}{3} + \frac{15}{3}$$

$$3(-2v^2 + 10v + 5)$$

Factor each completely.

7)  $p^2 - 14p + 40$

$a=1$   
 $b=-14$   
 $c=40$

a·c	b
40	-14
1 40	41
-1 -40	-41
-2 -20	-22
-4 -10	-14 ✓

$$(p - \frac{4}{1})(p - \frac{10}{1})$$

$$(p - 4)(p - 10)$$

8)  $b^2 + b - 6$

$a=1$   
 $b=1$   
 $c=-6$

a·c	b
-6	1
-1 6	5
-2 3	1 ✓

$$(b - \frac{2}{1})(b + \frac{3}{1})$$

$$(b - 2)(b + 3)$$

9)  $7m^2 - 22m + 3$

$a=7$   
 $b=-22$   
 $c=3$

a·c	b
21	-22
-1 -21	-22

$$(m - \frac{1}{7})(m - \frac{21}{7})$$

$$(7m - 1)(m - 3)$$

10)  $10k^2 + 74k - 144$

$a=5$   
 $b=37$   
 $c=-72$

a·c	b
-360	37
-1 360	359
-2 180	178
-3 120	117
-4 90	86
-5 72	67
-6 60	54
-8 45	37

$$2(5k^2 + 37k - 72)$$

$$(k - \frac{8}{5})(k + \frac{45}{5})$$

$$(5k - 8)(k + 9)$$

$$2(5k - 8)(k + 9)$$