



NAME : _____

CLASS : _____

DATE : _____

Homework 7.2 due Mon 3/15 *4 problems require work*

11 Questions

1. **WORK REQUIRED** Factor $x^2 + 7x - 30$ to identify which one of the following is one of the factors

a) $(x + 15)$

b) $(x - 10)$

c) $(x + 3)$

d) $(x + 10)$

2. Factor

$$n^2 + 5n - 6$$

a) $(n - 2)(n - 3)$

b) $(n - 1)(n + 6)$

c) $(n + 1)(n - 6)$

d) $(n + 2)(n - 3)$

3. Factor

$$a^2 - a - 12$$

a) $(a - 4)(a + 3)$

b) $(a + 6)(a - 4)$

c) $(a - 6)(a + 4)$

d) $(a + 4)(a - 3)$

4. Which is another way of correctly expressing

$$(x - 3)(x - 3)?$$

a) $(x^2 - 3^2)$

b) $(x^2 - 3)$

c) $(x + 3)(x - 3)$

d) $(x - 3)^2$

5. **WORK REQUIRED** Factor $x^2 - 8x - 128$ to identify which one of the following is one of the factors

a) $(x - 64)$

b) $(x - 16)$

c) $(x - 32)$

d) $(x + 2)$

6. Factor $x^2 - 5x + 6$, to identify the two factors

a) $(x-1)$

b) $(x - 6)$

c) $(x-3)$

d) $(x-2)$

7. Factor completely to determine all factors of the polynomial: $2x^2 - 10x - 48$

a) 2

b) $(x - 8)$

c) $(x+3)$

d) $(2x + 1)$

e) $(x - 4)$

8. $x^2 - 16$

a) Prime

b) $(x - 4)(x + 4)$

c) $(x - 8)(x + 8)$

d) $(x - 4)(x - 4)$

9. Factor completely: $x^3 - 81x$

a) $1(x - 81)$

b) $x(x - 81x)$

c) $x(x - 9)(x + 9)$

d) $x^2(1 - 9)$

10. **WORK REQUIRED** Simplify: $(x + 7)(x - 2)$

a) $x^2 + 5x - 14$

b) $x^2 + 5$

c) $x^2 + 5x - 9$

d) $7x - 14$

11. **WORK REQUIRED** Simplify: $(2x + 3)(x - 5)$

a) $2x^2 - 10x - 15$

b) $2x^2 + 7x - 15$

c) $2x^2 - 7x - 15$

d) $-5x - 15$