MAKE ABSENT

Ch 7 part 2 Name Key

REVIEW SHEET $\frac{+}{31}$ Period _____

FACTOR completely. (2-3 pts each)

1. $12a^3b^2 - 6a^2b + 4a^2b^2 - 2ab$

$2ab(6a^2b - 3a + 2ab - 1)$

$3a(2ab-1) + 1(2ab-1)$

$2ab(2ab-1)(3a+1)$

2. $2x^2 - 8xy + 8y^2$

$2(x^2 - 4xy + 4y^2)$

$2(x-2y)^2$

1. $2ab(2ab-1)(3a+1)$

2. $2(x-2y)^2$

3. $3x^2 - x - 4$ -12, $+3$, -4, -1

$3x^2 + 3x \mid -4x - 4$

$3x(x+1) \mid -4(x+1)$

$(x+1)(3x-4)$

4. $3x^6 - 12x^3$

$3x^3(x^3 - 4)$

3. $(x+1)(3x-4)$

4. $3x^3(x^3-4)$

5. $8x^3 + 32x^2 - 96x$

$8x(x^2 + 4x - 12)$

$8x(x+6)(x-2)$

6. $4x^3 - 16x$

$4x(x^2 - 4)$

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

5. $8x(x+6)(x-2)$

6. $4x(x+4)(x-4)$

Solve the equation. (4 pts each)

7. $(x-2)(x+10) = 28$

$x^2 + 8x - 20 = 28$

$x^2 + 8x - 48 = 0$

$(x+12)(x-4) = 0$

$x = -12, 4$

8. $x^2 - 3x = 54$

$x^2 - 3x - 54 = 0$

$(x-9)(x+6) = 0$

$x = 9, -6$

7. $x = 4, -12$

8. $x = 9, -6$

9. The length of a rectangular patio is 8 feet less than twice its width. **(4pts)**

a. Give the dimensions of the patio as a polynomial. Length = $2x-8$

Width = x

b. Write a simplified polynomial that represents the area of the patio.

$x(2x-8)$

$2x^2-8x$

c. Write a simplified polynomial that represents the perimeter of the garden.

$2(2x-8+x)$

$2(3x-8)$

$6x-16$

d. Find the perimeter of the garden when the width is 5 feet.

$6x-16$

$6(5)-16 = 30-16 = 14ft$

e. Find the area of the garden when the width is 5 feet.

$2x^2-8x$

$2(5)^2-8(5)$

$50-40 = 10ft^2$

10. Your teacher's work station is made up of two identical desks arranged as shown. **(4pts)**

a. Write an equation that relates the area of DESK 1 to the area of DESK 2.

$x(x+2) = x(6-x)$

OR $x^2+2x = -x^2+6x$

b. What is the value of x?

$x^2+2x = -x^2+6x$

$2x^2-4x=0$

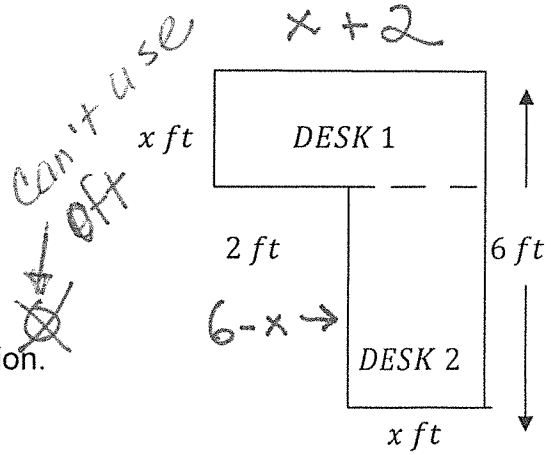
$2x(x-2)=0$

$x=2$, can't use 0ft

c. Find the area of the top of your teacher's work station.

$x^2+2x + -x^2+6x$

$8x$



d. Write a simplified polynomial that represents the perimeter of the teacher's work station.

$x+2+6+x+6-x+2+x$

$2x+16$

or $2(x+8)$