Questions from Homework

(21) $\frac{4}{9} - 16x^2$

$\left(\frac{2}{3} + 4x\right)\left(\frac{2}{3} - 4x\right)$

(43) $(x+y)^2 - 36$

$[(x+y)+6][(x+y)-6]$

$(x+y+6)(x+y-6)$

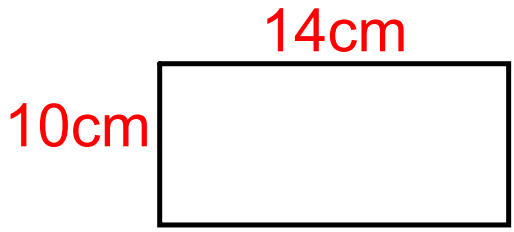
(45) $(2x+y)^2 - (3x+y)^2$

$[(2x+y)+(3x+y)][(2x+y)-(3x+y)]$

$[2x+y+3x+y][2x+y-3x-y]$

$(5x+2y)(-x)$

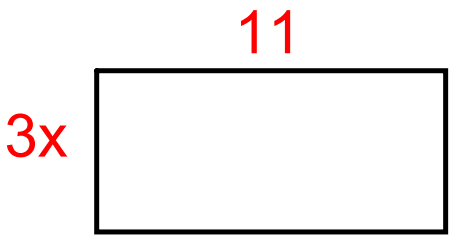
Determine the area:



$A = l \times w$

$A = 14 \times 10 = 140 cm^2$

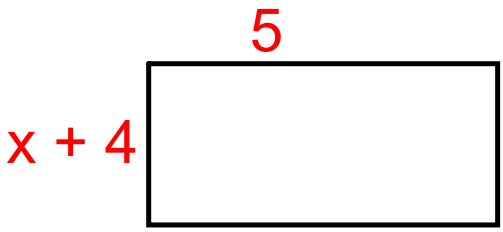
Determine the area:



$A = l \times w$

$A = 11 \times 3x = 33x \text{ units}^2$

Determine the area:



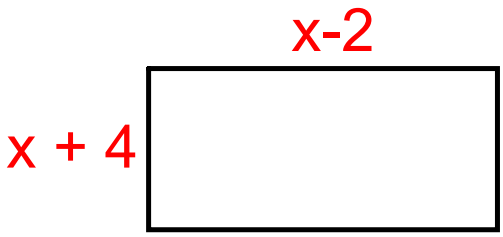
$A = l \times w$

$A = 5 \times (x+4)$

$A = 5(x+4)$

$A = 5x + 20$

Determine the area:



$A = l \times w$

$A = (x-2)(x+4)$

$A = x^2 + 4x - 2x - 8$

$A = x^2 + 2x - 8$

$- + - = 2$

$- \times - = -8$

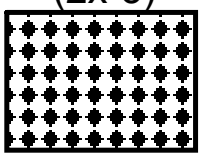
-8

-1×8

-2×4

Determine the area:

(2x-3)



(5x+1)

(2x-3)(5x+1)

$10x^2+2x-15x-3$

$10x^2-13x-3$

Which of the following can be represented by a rectangle? → length x width

$5a^2-7a-6$

3 + -10 = -7

3 x -10 = -30

-30

1 x -30

2 x -15

3 x -10

5 x -6

$(a+3)(a-10)$

5

$(5a+3)(a-2)$

length ↑ width ↑

$5a^2-12a-6$

Not Possible!!

___ + ___ = -12

___ x ___ = -30

-30

1 x -30

2 x -15 ??

3 x -10

5 x -6

Common Factoring

Start Here

$g^4x^2-g^9x^5$

$4r^8-16r^7s^9+2r^{10}$

$22w^7-88z^{14}$

Trinomial

3 terms

$x^2-9x+16$

$4z^2+16z+7$

$m^2-10m-9$

Difference of Squares

2 terms

$64v^2-81$

x^2-16

Choose a polynomial out of the bag and then determine which type of factoring it is.

How are your Factoring Skills?

Factor each of the following:

1. $15m^5n^3p - 30n^7p^3 + 60m^4n^8p^5$

2. $x^2 - 2x - 35$

3. $270xy^2 - 180x^3y - 90xy$

4. $5x^2 + 14xy - 3y^2$

5. $4x^2 - 14x - 8$

1. $15m^5n^3p - 30n^7p^3 + 60m^4n^8p^5$

$15n^3p(m^5 - 2n^4p^2 + 4m^4n^5p^4)$

5 + -7 = -2

5 x -7 = -35

-35

1 x -35

5 x -7

2. $x^2 - 2x - 35$

$(x + 5)(x - 7)$

3. $270xy^2 - 180x^3y - 90xy$

$90xy(3y - 2x^2 - 1)$

4. $5x^2 + 14xy - 3y^2$

Prime (Nothing Common)

$\frac{1}{\ } + \frac{-8}{\ } = -7$

$\frac{1}{\ } \times \frac{-8}{\ } = -8$

-8

1×-8

2×-4

5. $4x^2 - 14x - 8$

$2(2x^2 - 7x - 4)$

$2(x + \frac{1}{2})(x - \frac{8}{2})$

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

Homework

① $-45b^5 - 5$

$-5(9b^5 + 1)$