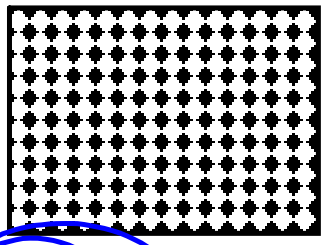
Determine the area:

(2x-3)



(5x+1)

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

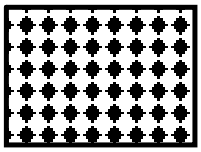
$5a^2-7a-6$

Which of the following can be represented by a rectangle?

$5a^2-12a-6$

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?

$5a^2-7a-6$

____ + ____ = -7

____ x ____ = -30

1 -30
2 -15
3 -10
5 -6

$5a^2+3a-10a-6$

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

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

$5a^2-12a-6$ x5

____ + ____ = -12

____ x ____ = -30

?? Not Possible!!

1 -30
2 -15
3 -10
5 -6

$5a^2-7a-6$ x5

$(5a+3)(5a-10)$

$5 \quad 5$

$(a+\frac{3}{5})(a-2)$

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

26. $-\frac{1}{4} + z^{1/2}$

$z^{1/2 \cdot 2} - \frac{1}{4}$

$\left(z^{\frac{1}{4}}\right)^2 - \left(\frac{1}{2}\right)^2$

$\left(z^{\frac{1}{4}} + \frac{1}{2}\right)\left(z^{\frac{1}{4}} - \frac{1}{2}\right)$

$\frac{1}{4} \times \frac{2}{1}$

$\frac{2}{4}$

$= \frac{1}{2}$

$(-1)^3$

$(-1)^2$

-1^3

-1

Common Factoring

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

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

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

Trinomial

$x^2-9x+16$

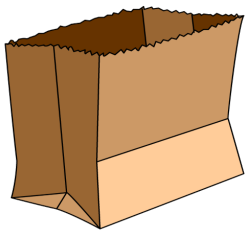
$4z^2+16z+7$

$m^2-10m-9$

Difference of Squares

$64v^2-81$

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

$5x^2 + 14x - 3$

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

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

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

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

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

____ + ___ = -2

____ x ___ = -35

1 -35

5 -7

$x^2 + 5x - 7x - 35$

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

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

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

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

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

$5x^2 + 14xy - 3y^2$ ×5

$\left(\frac{5x-1y}{5}\right)\left(\frac{5x+15y}{5}\right)$

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

$= (5x-1y)(x+3y)$

$\_x\_ = \ominus 15$ Diff.

$\_+\_ = \oplus 14$ Big ⊕

$-1x+15$

____ + ___ = -14

____ x ___ = -32

1 -32
2 -16
4 -8

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

$$4x^2 + 2x - 16x - 8$$

$$2x(2x + 1) - 8(2x + 1)$$

$$(2x + 1)(2x - 8)$$