

3/1

## Subtracting Polynomials

Oct 5

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

$= (3x - 5) - (x + 2)$

$= 2x - 7$

The work shows the subtraction of the polynomial  $(x + 2)$  from  $(3x - 5)$ . The distributive property is applied to the subtraction, resulting in  $(3x - 5) - (x + 2)$ . The terms are then grouped:  $3x$  and  $-5$  are circled in blue,  $-x$  is circled in blue, and  $-2$  is circled in blue. The final simplified result is  $2x - 7$ .

$$7. (x+4) - 1(-x-3)$$

$$= x+4 + x+3$$

$$= 2x+7$$

$$15. (2y^2+3y-5) - 1(2y^2+4y+6)$$

$$= \cancel{2y^2} + 3y - 5 - \cancel{2y^2} - 4y - 6$$

$$= y-11$$

\* 18. Subtract  $3x^2 + 7x - 3$  from  $2x^2 - 2x + 3$

$$(2x^2 - 2x + 3) - 1(3x^2 + 7x - 3)$$

$$= \textcircled{2x^2} - \textcircled{2x} + \textcircled{3} - \textcircled{3x^2} - \textcircled{7x} + \textcircled{3}$$

$$= -x^2 - 9x + 6$$

21.  $(-5n^2 - n - 8) - 1(-2n^2 + 7n - 3)$

$$= \textcircled{-5n^2} - \textcircled{n} - \textcircled{8} + \textcircled{2n^2} - \textcircled{7n} + \textcircled{3}$$

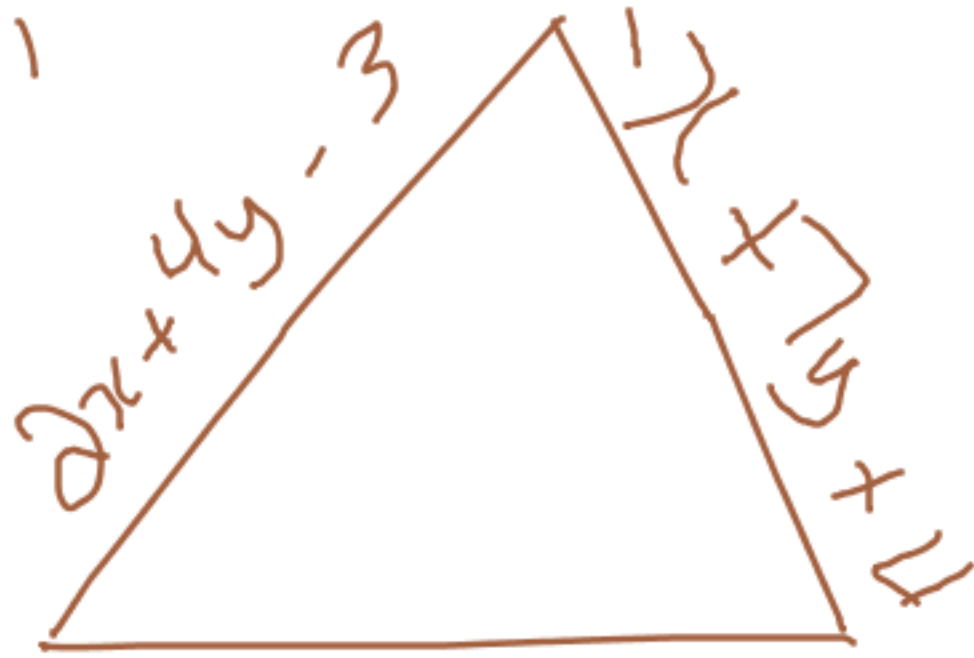
$$= -3n^2 - 8n - 5$$

24.  $(x^2 + 5x + 3) - 1(-x^2 - 7x + 11)$

$= (x^2 + 5x + 3) + x^2 + 7x - 11$

$= 2x^2 + 12x - 8$

2901



$$\text{Missing Side} = P - (S_1 + S_2)$$

$$M.S. = 5x + 3y - 2 - (2x + 4y - 3 + x + 7y + 4)$$

$$M.S. = 5x + 3y - 2 - (x + 11y + 1)$$

$$M.S. = 5x + 3y - 2 - x - 11y - 1$$

$$P = 5x + 3y - 2 \quad M.S. = 4x - 8y - 3$$

Find: the missing side

$\therefore$  the missing side is   
  ~~$(4x - 8y - 3)$~~  units

# p. 314-15 Distributive Property

2.  $2(3x + 2)$   
 $= 6x + 4$

$3(x - 2)$   
 $= 3x - 6$

5.  $7(x - 1)$   
 $= 7x - 7$

8.  $4(m - 5)$   
 $= 4(m - 20)$

11.  $10(d + 2)$   
 $= 10d + 20$

Homework: Subtracting Polynomials

pp 310 - 311 - 312