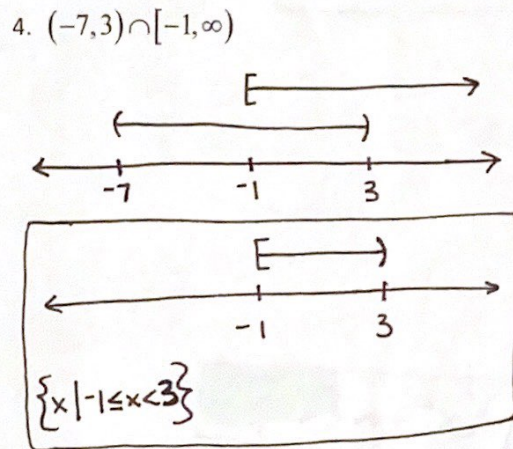
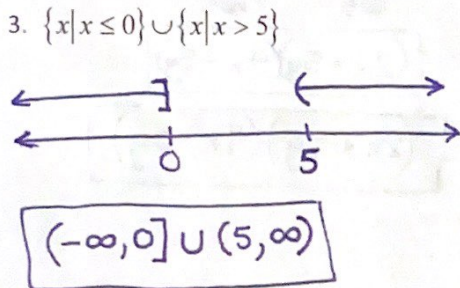
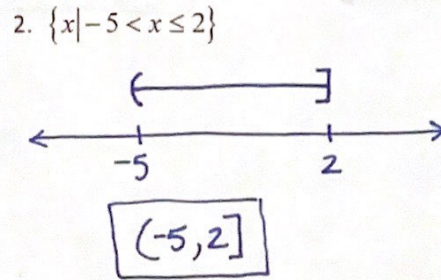
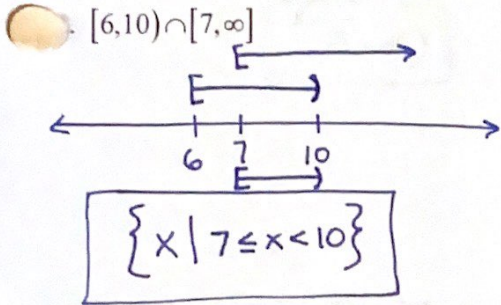


Section P.4: Factoring WS 4

Name KEY

Graph each set and write the solution in the opposite notation then it was given.



Factor completely.

5.  $x^2 + 7x + 12$   
 $\begin{matrix} & & \widehat{4} & \widehat{3} \\ & & 4 & 3 \end{matrix}$

$(x+4)(x+3)$

6.  $x^2 - 10x - 24$   
 $\begin{matrix} & & \widehat{-12} & \widehat{2} \\ & & -12 & 2 \end{matrix}$

$(x-12)(x+2)$

7.  $6x^2 + xy - 40y^2$

$\begin{matrix} 36x & 25x & -240 \\ \hline 12 & -5 & 16 & -15 \end{matrix}$

$(3x+8y)(2x-5y)$

8.  $8x^4 - 26x^3 + 15x^2$

$x^2(8x^2 - 26x + 15)$   
 $x^2(4x-3)(2x-5)$

9.  $36x^2 - 81$

$9(4x^2 - 9)$   
 $9(2x+3)(2x-3)$

10.  $9x^2 + 10x + 1$

$\begin{matrix} 9x & 9x & 9 \\ \hline 9 & 1 & 9 & 1 \end{matrix}$

$(9x+1)(x+1)$

11.  $16x^2 - 49$

$$(4x+7)(4x-7)$$

12.  $x^3 + 27y^3$

$$(x+3y)(x^2-3xy+9y^2)$$

13.  $x^2 + 10x + 25$

$$(x+5)^2$$

14.  $27x^3 - 8$

$$(3x-2)(9x^2+6x+4)$$

15.  $16x^3 + 36x^2$

$$4x^2(4x+9)$$

16.  $8x^2 + 10xy - 25y^2$

$$\frac{28x}{20} \quad \frac{48x}{-10}$$

$$\begin{array}{r} -200 \\ \wedge \\ 20 \quad -10 \end{array}$$

$$(2x+5y)(4x-5y)$$

17.  $x^3 + y^3$

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

18.  $4x^2 - 169y^2$

$$(2x+13y)(2x-13y)$$

19.  $4x^2 + 12x + 9$

$$\frac{24x}{6} \quad \frac{24x}{6}$$

$$\begin{array}{r} 36 \\ \wedge \\ 6 \quad 6 \end{array}$$

$$(2x+3)^2$$

20.  $8x^3 + 1$

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