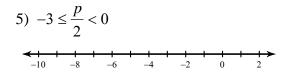
## **Compound Inequalities**

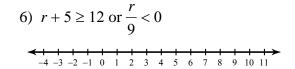
Solve each compound inequality and graph its solution.

1) 
$$m-2 < -8 \text{ or } \frac{m}{8} > 1$$

2) 
$$-1 < 9 + n < 17$$
 $\leftarrow 12 -10 -8 -6 -4 -2 0 2 4 6 8$ 

3) 
$$2x < 10$$
 or  $\frac{x}{2} \ge 3$ 

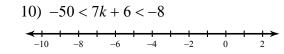




7) 
$$7v - 5 \ge 65$$
 or  $-3v - 2 \ge -2$ 

8) 
$$-10b + 3 \le -37$$
 or  $3b - 10 \le -25$ 

9) 
$$-1 + 5n > -26$$
 and  $7n - 2 \le 12$ 

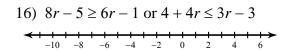


11) 
$$8x + 8 \ge -64$$
 and  $-7 - 8x \ge -79$ 

13) 
$$-36 < 3p - 6 < -15$$

14) 
$$-1 - 10a < -1$$
 or  $10 + 3a \le -5$ 

15) 
$$3n + 2 < -2 + 7n$$
 or  $8n - 4 \le 3n - 4$ 



17) 
$$5x - 5 > -7x - 5$$
 or  $3x + 5 \le x - 1$ 

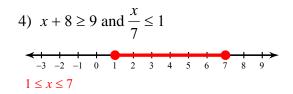
18) 
$$6 + 7m < 6m - 5$$
 or  $3m - 7 < 5 + 6m$ 

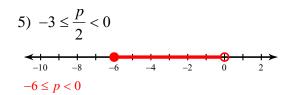
## Compound Inequalities

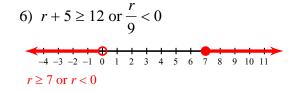
Solve each compound inequality and graph its solution.

1) 
$$m-2 < -8 \text{ or } \frac{m}{8} > 1$$
 $m < -6 \text{ or } m > 8$ 

3) 
$$2x < 10$$
 or  $\frac{x}{2} \ge 3$ 
 $x < 5$  or  $x \ge 6$ 







7) 
$$7v - 5 \ge 65 \text{ or } -3v - 2 \ge -2$$
 $v \ge 10 \text{ or } v \le 0$ 

8) 
$$-10b + 3 \le -37 \text{ or } 3b - 10 \le -25$$
  
 $-8 - 7 - 6 - 5 - 4 - 3 - 2 - 1 \ 0 \ 1 \ 2 \ 3 \ 4 \ 5 \ 6 \ 7$   
 $b \ge 4 \text{ or } b \le -5$ 

 $-5 < n \le 2$ 

12)  $2n + 7 \ge 27$  or  $3 + 3n \le 30$ 12)  $2n + 7 \ge 27$  or  $3 + 3n \le 30$ 12)  $2n + 7 \ge 27$  or  $3 + 3n \le 30$ 13)  $2n + 7 \ge 27$  or  $3 + 3n \le 30$ 14)  $2n + 7 \ge 27$  or  $3 + 3n \le 30$ 15)  $2n + 7 \ge 27$  or  $3 + 3n \le 30$ 

14) -1 - 10a < -1 or  $10 + 3a \le -5$  -9 - 8 - 7 - 6 - 5 - 4 - 3 - 2 - 1 0 1 2 3 4 5 a > 0 or  $a \le -5$ 

15)  $3n + 2 < -2 + 7n \text{ or } 8n - 4 \le 3n - 4$   $3n - 4 \le 3n - 4$  3

16)  $8r - 5 \ge 6r - 1$  or  $4 + 4r \le 3r - 3$   $r \ge 2$  or  $r \le -7$ 

17) 5x - 5 > -7x - 5 or  $3x + 5 \le x - 1$  -8 - 7 - 6 - 5 - 4 - 3 - 2 - 1 0 1 2 3 4x > 0 or  $x \le -3$  18) 6 + 7m < 6m - 5 or 3m - 7 < 5 + 6m  $-14 \quad -12 \quad -10 \quad -8 \quad -6 \quad -4 \quad -2 \quad 0$  m < -11 or m > -4

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