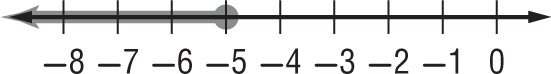
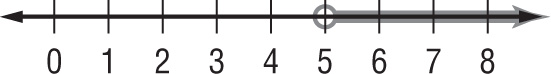
***Inequalities – Exam Review #4***

**Solve each inequality, showing all work. Then, match each solution to its corresponding graph.**

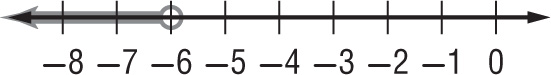
**\_\_\_\_\_ 1.** *x* + 11 > 16 **a.**

****

**\_\_\_\_\_ 2.** *x –* 6 < 1 **b.**

****

**\_\_\_\_\_ 3.** *x* + 2 ≤ –3 **c.**

****

**\_\_\_\_\_ 4.** *x* + 3 ≥ 1 **d.**

****

**\_\_\_\_\_ 5.** *x –* 1 < –7 **e.**

**Solve each inequality for the variable. Show all work.**

**6.** 20*b* ≥ –120 **7.** –8*r* < 16

**8.** ≥ –15 **9.** > 9

**10.** Which of the following is the solution to the given inequality? **–2*b* + 4 > –6**

**a.** b > 1

**b.** b < -1

**c.** b < 5

**d.** b > 5

**11.** Which of the following is the solution to the given inequality? **2(*q* – 3) + 6 ≤ –10**

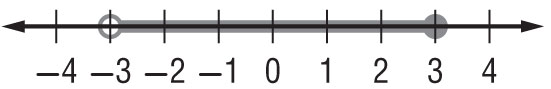
**a.** q ≤ -5

**b.** q ≤ -2

**c.** q ≤ -6.5

**d.** q ≤ -8

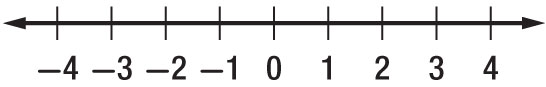
**12. MULTIPLE CHOICE** Which of the following compound inequalities accurately describes the given number line?

****

**a.** x < -3 or x ≥ 3 **c.** -3 < x ≤ 3 **e.** both b and c

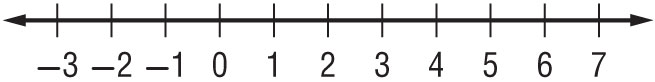
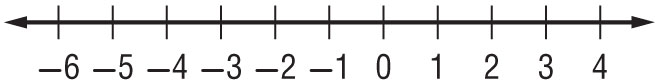
**b.** x > -3 and x ≤ 3 **d.** both a and c **f.** all of the above

**13.** Graph the following compound inequality. ***y* < –1 or *y* ≥ 2**

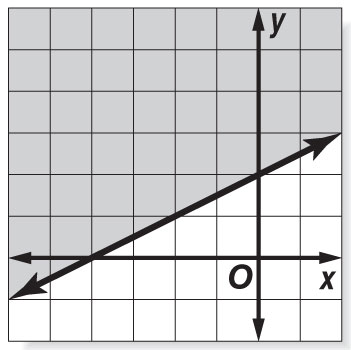
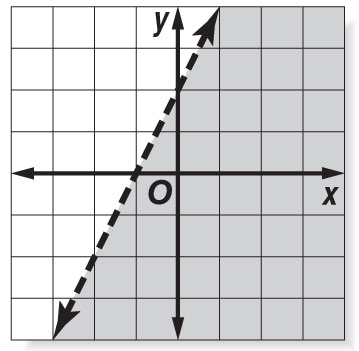


**Solve each inequality including absolute value, then plot your solutions on the given number line.**

**14.**  < 1  **15.**  ≥ 1



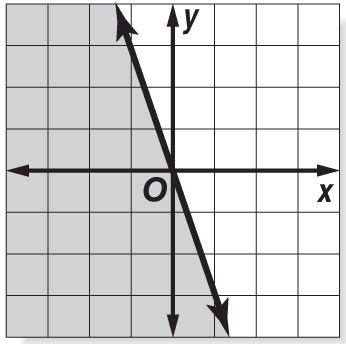
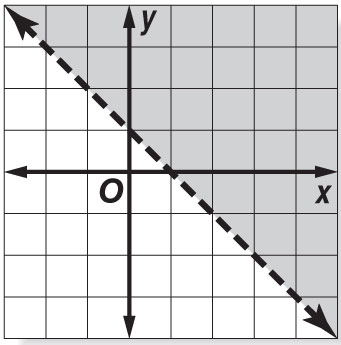
**Match each two-variable inequality with its corresponding graph. Then, give at least one reason for how you know.**

** \_\_\_\_\_ 16.** *y* < 2*x* +2 **a. b.**

*Because…*

**\_\_\_\_\_ 17.** *y* ≤ –3*x*

*Because…*

**\_\_\_\_\_ 18.** *y* ≥  **c. d.**

*Because…*

**\_\_\_\_\_ 19.** *y* > -x + 1

*Because…*