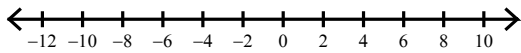


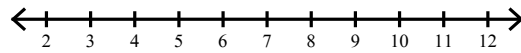
## Test A Review

Solve each compound inequality and graph its solution.

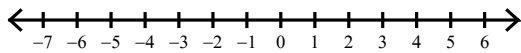
1)  $8v - 1 < -57$  or  $-5v - 5 \leq -40$



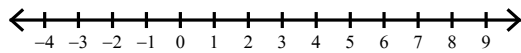
2)  $-4b - 7 < -43$  or  $10b + 2 \leq 62$



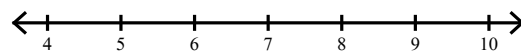
3)  $1 - 3x \geq 7$  or  $10 - 8x \leq -6$



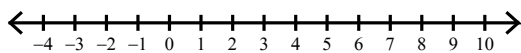
4)  $9 - 7x < 16$  and  $-7x + 5 > -37$



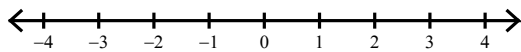
5)  $-5a + 1 \leq -29$  and  $7 - 7a > -56$



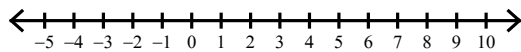
6)  $-4 + 3x > 11$  or  $10 - 6x > 4$



7)  $8k + 5 \geq 5$  or  $6k + 10 > 10$

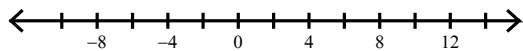


8)  $5x + 10 > 0$  and  $-x - 6 > -15$

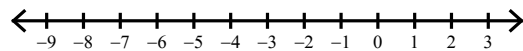


Solve each inequality and graph its solution.

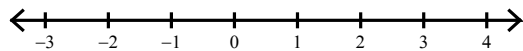
9)  $|2 - 3m| + 9 > 35$



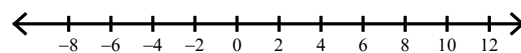
10)  $9|8 + 3n| \leq 90$



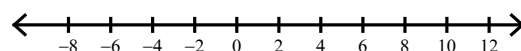
11)  $-5|3r - 2| > -40$



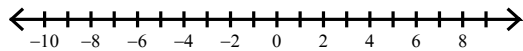
12)  $\frac{|1 - 4x|}{7} > 4$



13)  $\frac{|4n - 4|}{9} > 3$



14)  $|4 + 7x| + 4 < 57$



Solve each system by substitution.

15)  $-2x - 6y = -4$   
 $x - 7y = 22$

16)  $8x - 6y = 10$   
 $2x + y = -15$

$$\begin{aligned} 17) \quad & -2x + 10y = 4 \\ & x - 5y = -1 \end{aligned}$$

**Solve each system by elimination.**

$$\begin{aligned} 18) \quad & -2x - 2y = -16 \\ & 6x - 8y = 20 \end{aligned}$$

$$\begin{aligned} 19) \quad & -12x + 2y = -20 \\ & 6x + 5y = -14 \end{aligned}$$

$$\begin{aligned} 20) \quad & 9x - 18y = -18 \\ & -x + 2y = 2 \end{aligned}$$

$$\begin{aligned} 21) \quad & 2r + 6s - t = -6 \\ & 4r + 5s - t = -13 \\ & -5r - 5s + t = 16 \end{aligned}$$

$$\begin{aligned} 22) \quad & r + 3s + 6t = 21 \\ & -6r - 6s = -18 \\ & 5r + 4s - 6t = -6 \end{aligned}$$

23) How many gal. of a 17% alcohol solution must be mixed with 8 gal. of a 44% alcohol solution to make a 35% solution?

24) How many L of a 81% acid solution must be mixed with 1 L of a 27% acid solution to make a 75% solution?

25) Alberto wants to make 10 L of a 30% acid solution by mixing together a 75% acid solution and pure water. How much of each solution must he use?

26) Elisa wants to make 10 ml of a 18% saline solution by mixing together a 15% saline solution and a 25% saline solution. How much of each solution must she use?

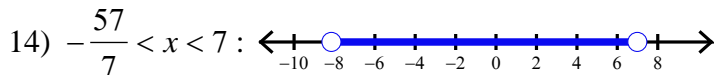
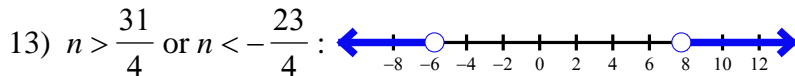
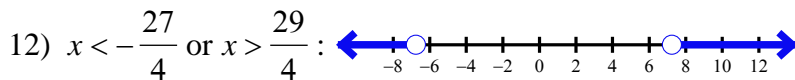
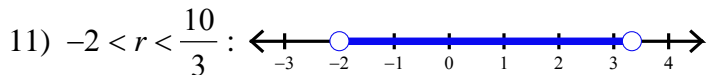
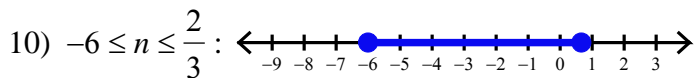
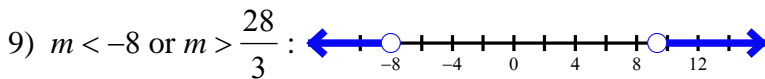
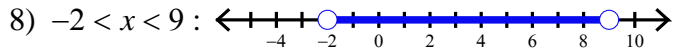
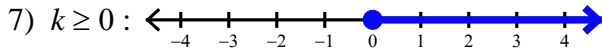
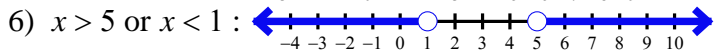
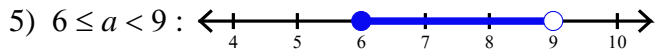
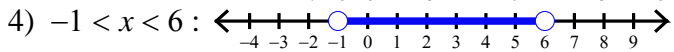
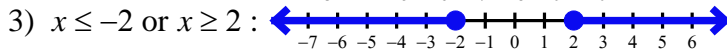
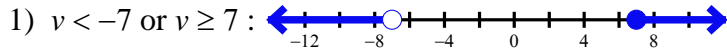
27) A total of \$18000 is invested, part of it at 6% and the rest at 9%. The total interest after one year is \$1248. How much was invested at each rate?

28) Kerry earned a total of \$900 last year on his investments. If \$7000 was invested at a certain rate of return and \$9000 was invested at a rate that was 2% higher, find the two rates of interest.

29) \$3.75 is made up of quarters and half dollars. If the number of quarters exceeds the number of half dollars by 3, how many coins of each denomination are there?

30) There were 200 tickets sold for a women's basketball game. Tickets for students were 50 cents each and for adults 75 cents each. The total amount of money collected was \$132.50. How many of each type of ticket were sold?

# Answers to Test A Review



15)  $(8, -2)$

16)  $(-4, -7)$

17) No solution

18)  $(6, 2)$

19)  $(1, -4)$

20) Infinite number of solutions

21)  $(-3, 1, 6)$

22)  $(6, -3, 4)$

23) 4 gal.

24) 8 L

25) 4 L of 75% solution, 6 L of pure water

26) 7 ml of 15% solution, 3 ml of 25% solution

27) \$12400 at 6% and \$5600 at 9%

28) \$7000 at 4.5% and \$9000 at 6.5%

29) 7 Quarters, 4 Half Dollars

30) 130 adults, 70 children