

Solve the equation.

1) $11x + 1.4 = -61.3$

2) $8x - 4 = 4x - 28$

3) $-8(k - 1) - (-9k + 1) = -5$

4) $\frac{1}{5} - \frac{x}{3} = \frac{19}{15}$

5) $-\frac{1}{2}(x + 6) - \frac{1}{9}(x - 9) = x + 3$

6) $\frac{1}{4}(8x - 12) = 6\left(\frac{1}{3}x - \frac{1}{2}\right) + 9$

Solve.

7) Three times the sum of some number plus 2 is equal to 6 times the number minus 18.

8) The population of a town increased by 70% in 5 years. If the population is currently 31,000, find the population of this town 5 years ago. (Round to the nearest whole, if necessary.)

Solve the formula for the specified variable.

9) $F = \frac{9}{5}C + 32$ for C

Solve the inequality. Write the solution set in interval notation and graph the solution set.

10) $4z - 4 \geq 3z - 9$

**Write the solution set using interval notation.**

11) $-7(y + 1) \leq -9y - 7$

Solve.

12) An archer has \$132 to spend on a new archery set. A certain set containing a bow and three arrows costs \$62. With the purchase of this set, he can purchase additional arrows for \$7 per arrow. Use an inequality to find the maximum number of arrows he could obtain, including those with the set, for his \$132.

List the elements of the set.13) If $A = \{47, 49, 50, 51, 54\}$ and $B = \{47, 49, 50, 51\}$, list the elements of $A \cap B$.

A) $\{47, 49, 50, 51\}$

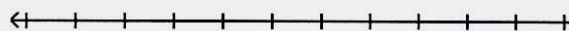
B) $\{\}$

C) $\{54\}$

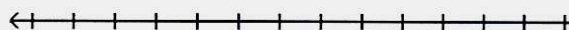
D) $\{47, 49, 50, 51, 54\}$

Solve the compound inequality. Graph the solution set.

14) $-6x > -12$ and $x + 6 > 7$



15) $7 \leq 3t - 2 \leq 16$

**List the elements of the set.**16) If $A = \{57, 58, 59, 62\}$ and $B = \{55, 57, 58, 60\}$, list the elements of $A \cup B$.**Solve the compound inequality. Graph the solution set.**

17) $9x - 6 < 3x$ or $-3x \leq -9$

**Solve the absolute value equation.**

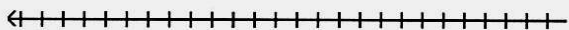
18) $|6x + 7| + 8 = 11$

19) $|9x - 5| = 0$

20) $|5x - 8| = |x - 3|$

Solve the inequality. Graph the solution set.

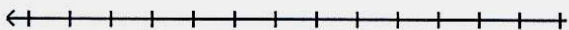
21) $|x - 5| - 4 \leq 4$



22) $|5k - 5| > -3$



23) $|3k + 5| - 2 > 4$



Answer Key

Testname: 1010 TEST 1 REVIEW

1) -5.7

2) -6

3) -12

4) $-\frac{16}{5}$

5) $-\frac{90}{29}$

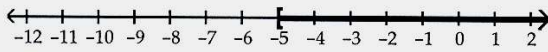
6) \emptyset

7) 8

8) 18,235

9) $C = \frac{5}{9}(F - 32)$

10) $[-5, \infty)$



11) $(-\infty, 0]$

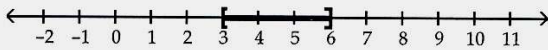
12) at most 13 arrows

13) A

14) (1, 2)



15) [3, 6]



16) {55, 57, 58, 59, 60, 62}

17) $(-\infty, 1) \cup [3, \infty)$

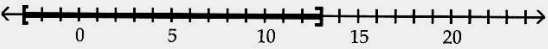


18) $-\frac{2}{3}, -\frac{5}{3}$

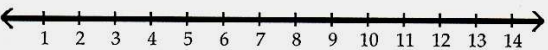
19) $\frac{5}{9}$

20) $\frac{5}{4}, \frac{11}{6}$

21) $[-3, 13]$



22) $(-\infty, \infty)$



23) $(-\infty, -\frac{11}{3}) \cup (\frac{1}{3}, \infty)$

