

Practice for Q1Exam2

Date_____ Period_____

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Solve each equation.

1) $-5(m + 5) = 19 + 6m$

2) $-9|5p + 10| = -90$

Name ALL of the sets of numbers to which the number belongs.

3) $\sqrt{15}$

Solve each inequality and graph its solution.

4) $5n - 4 + 6 \leq -8$

Solve each inequality and graph its solution on a number line.

5) $|-7 + 9m| - 8 \geq 62$

Solve each compound inequality and graph its solution on a number line.

6) $-7 < -2x - 3 \leq 5$

Evaluate each function.

7) $f(t) = -t + 2$; Find $f(3 + t)$

Solve each system.

8)
$$\begin{aligned} x - 2y &= 14 \\ 2x - 3y &= 24 \end{aligned}$$

Write the slope-intercept form of the equation of the line through the given points.

9) through: $(-2, -5)$ and $(1, 2)$

Graph the solution to each system of inequalities.

10)
$$\begin{aligned} 2x - y &< 1 \\ 2x + y &\geq 3 \end{aligned}$$

Simplify. Write "undefined" for expressions that are undefined.

11) $\begin{bmatrix} 2 & -1 \end{bmatrix} - \begin{bmatrix} -1 & -6 \end{bmatrix}$

12) $\begin{bmatrix} -5 & 3 \\ 3 & 5 \end{bmatrix} \cdot \begin{bmatrix} 5 & 5 \\ -5 & -5 \end{bmatrix}$

Evaluate:

13) $\begin{vmatrix} -3 & -3 \\ 1 & 3 \end{vmatrix}$

14) $\begin{vmatrix} 1 & -1 \\ 1 & 0 \end{vmatrix}$

Simplify.

15) $\frac{2xy^3}{-4x^3y^2}$

16) $4x^3y^{-4} \cdot 2y^{-1}$

Write the slope-intercept form of the equation of the line described.

17) through: $(-4, 1)$, parallel to $y = -\frac{5}{4}x - 1$

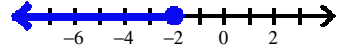
18) through: $(4, -4)$, perp. to $x = 0$

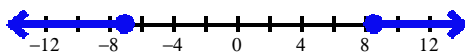
Answers to Practice for Q1Exam2 (ID: 1)

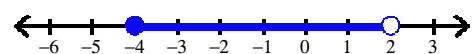
1) $\{-4\}$

2) $\{0, -4\}$

3) Irrational, Real

4) $n \leq -2$: A horizontal number line with arrows at both ends. It has tick marks at -6, -4, -2, 0, and 2. A solid blue dot is placed at -2, and a blue ray extends to the left from this dot.

5) $m \geq \frac{77}{9}$ or $m \leq -7$: A horizontal number line with arrows at both ends. It has tick marks at -12, -8, -4, 0, 4, 8, and 12. Solid blue dots are placed at -8 and 8. Blue rays extend to the left from -8 and to the right from 8.

6) $-4 \leq x < 2$: A horizontal number line with arrows at both ends. It has tick marks at -6, -5, -4, -3, -2, -1, 0, 1, 2, and 3. A solid blue dot is placed at -4, and an open blue circle is placed at 2. A blue ray connects the dot at -4 to the circle at 2.

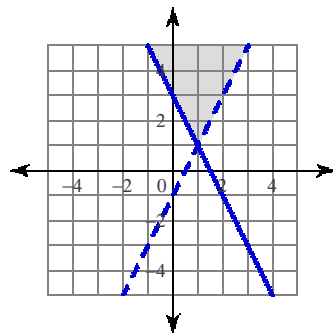
7) $-1 - t$

8) $(6, -4)$

9) $y = \frac{7}{3}x - \frac{1}{3}$

10)

11) $\begin{bmatrix} 3 & 5 \end{bmatrix}$



12) $\begin{bmatrix} -40 & -40 \\ -10 & -10 \end{bmatrix}$

13) -6

14) 1

15) $-\frac{y}{2x^2}$

16) $\frac{8x^3}{y^5}$

17) $y = -\frac{5}{4}x - 4$

18) $y = -4$