

Algebra 2

UNIT 1 Quiz 1 Review A [1.2,1.4,2.1]

NAME Key

DATE _____ PERIOD: 1 2 3 4 5 6

1) Find the quotient of $-\frac{5}{3}$ and $\frac{20}{9}$

$$-\frac{5}{3} \div \frac{20}{9} = \frac{-5}{3} \cdot \frac{9}{20} = \frac{-3}{4}$$

2) Evaluate: $-4^2 - (-3 - 7) + 5(1 + 2^3)^2$

81
25
405

405
-12
393

$$\begin{aligned} & -16 - (-4) + 5(1+8)^2 \\ & -16 + 4 + 5(9)^2 \\ & -16 + 4 + 5(81) \end{aligned} \rightarrow \begin{aligned} & -16 + 4 + 405 \\ & -12 + 405 \\ & \underline{393} \end{aligned}$$

3) Evaluate $-5x^3 + 3x^2 - 6x - 7$ when $x = -2$

$$\begin{aligned} & -5(-2)^3 + 3(-2)^2 - 6(-2) - 7 \\ & -5(-8) + 3(4) + 12 - 7 \\ & 40 + 12 + 12 - 7 \end{aligned} \rightarrow \begin{aligned} & 52 + 12 - 7 \\ & 64 - 7 \\ & \underline{57} \end{aligned}$$

4) Solve for a: $4(3a - 7) = 2a - 8$

$$\begin{aligned} & 12a - 28 = 2a - 8 \\ & \frac{-2a}{10a} + \frac{28}{10a} = \frac{2a}{10a} - \frac{8}{10a} \\ & 10a = 20 \end{aligned} \rightarrow \begin{aligned} & \frac{10a}{10} = \frac{20}{10} \\ & \underline{a=2} \end{aligned}$$

5) Solve for k: $8k + jk = 5$

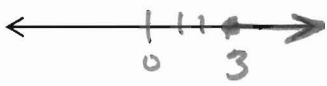
$$\frac{k(8+j)}{8+j} = \frac{5}{8+j} \rightarrow k = \frac{5}{8+j}$$

6) Solve for C: $\frac{5}{6}X = \frac{6}{5}(C - 20)$

$$\frac{5}{6}X = C - 20 \rightarrow C = \frac{5}{6}X + 20$$

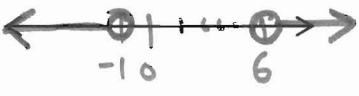
7) Solve and graph: $3a + 9 \leq 10a - 12$

$$\begin{aligned} & -7a \leq -21 \\ & \frac{-7a}{-7} \leq \frac{-21}{-7} \end{aligned} \rightarrow a \geq 3$$



8) Solve and graph: $-4x + 4 > 8$ or $-x < -6$

$$\begin{aligned} & -4x > 4 \\ & \frac{-4x}{-4} > \frac{4}{-4} \\ & x < -1 \end{aligned} \quad \text{or} \quad \begin{aligned} & -x < -6 \\ & \frac{-x}{-1} < \frac{-6}{-1} \\ & x > 6 \end{aligned}$$



9) Solve and graph: $-2 < -\frac{1}{3}x - 5 \leq 3$

$$\begin{aligned} & -2 < -\frac{1}{3}x - 5 \\ & \frac{+5}{+5} & \frac{+5}{+5} \\ & (-3) < -\frac{1}{3}x & (-3) \\ & \underline{-9 > x} \end{aligned} \quad \begin{aligned} & -\frac{1}{3}x - 5 \leq 3 \\ & \frac{+5}{+5} & \frac{+5}{+5} \\ & (-3) - \frac{1}{3}x \leq 8 & (-3) \\ & \underline{x \geq -24} \end{aligned}$$



1)	$-\frac{3}{4}$
2)	393
3)	57
4)	$a = 2$
5)	$k = \frac{5}{8+j}$
6)	$C = \frac{5}{6}x + 20$
7)	$a \geq 3$
8)	$x < -1$ $x > 6$
9)	$-9 > x$ $x \geq -24$