Secondary 1 Algebra Review Unit Name Key

Mini Test Practice -NO CALCULATOR Date_____ Period____

Round each number to the given place.

1) Round 73.526 to the hundredths place.

73.53

2) Round 0.65 to the ones place.

1.0

Find each product, quotient, sum and or difference then reduce the fraction.

3) $\frac{2}{3}+\frac{3}{4}$

$\frac{8}{12}+\frac{9}{12}=\frac{17}{12}$

4) $\frac{5}{2}-\frac{7}{6}$

$\frac{15}{6}-\frac{7}{6}=\frac{8}{6}=\frac{4}{3}$

5) $-\frac{3}{5}\cdot\frac{3}{5}$ $=\frac{-9}{25}$

6) $3\div(7/8)$

$\frac{3}{1}\div\frac{7}{8}=\frac{3}{1}\cdot\frac{8}{7}=\frac{24}{7}$

Give each value in exact and approximate form (if rounding, round to the hundredths place).

7) 2.58583

$=2.58583$

≈ 2.59

8) 3π

$=3\pi$

$\approx 9.42|477....$

≈ 9.42

Evaluate each expression.

9) $(2)(5+2)+2$

$2(7)+2$

$14+2$

16

10) $\frac{-10+5+1}{4}$ $=\frac{-10+5+1}{4}$

$=\frac{-5+1}{4}=\frac{-4}{4}=-1$

Factor each expression completely by undistributing.

11) $3(8-p)$

$24-3p$

$-3p+24$

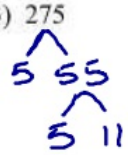
12) $7(1+2x)$

$7+14x$

$14x+7$

Use a factor tree to find the prime factorization of each number/expression.

13) 275



prime: 5, 11

14) 38

Prime: 2, 19

Given the equation or graph, list the key features.

15) $-2x + 2y + 4 = 0$

$+2x \quad +2x$

$2y + 4 = 2x$

$-4 \quad -4$

$\frac{2y}{2} = \frac{2x}{2} - \frac{4}{2}$

$y = x - 2$

m: 1

positive

y-int: (0, -2)

x-int: (2, 0)

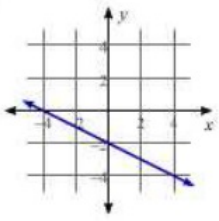
$y = x - 2$

$0 = x - 2$

$+2 \quad +2$

$2 = x$

16)



$m = \frac{-1}{2}$

negative

y-int: (0, -2)

x-int: (-4, 0)

For the below 2 questions find the solution(s) ALGEBRAICALY and GRAPHICALLY.

17) $\frac{1}{3}x - y = -2$

$\frac{3y}{3} = \frac{-x}{3} - \frac{6}{3}$

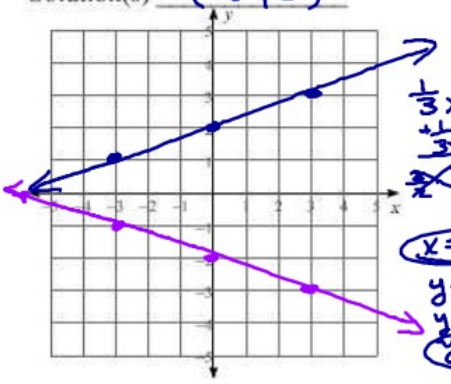
$\frac{1}{3}x - y = -2$

$-y = -\frac{1}{3}x - 2$

$y = \frac{1}{3}x + 2$

$y = -\frac{1}{3}x - 2$

Solution(s) (-6, 0)



$\frac{1}{3}x + 2 = -\frac{1}{3}x - 2$

$+\frac{1}{3}x \quad +\frac{1}{3}x$

$\frac{2}{3}x = -4 \cdot \frac{3}{2}$

$x = \frac{-12}{2} = -6$

$x = -6$

$y = -\frac{1}{3}(6) - 2$

$y = +2 - 2$

$y = 0$

18) $4x - 2y = 2$

$y - 1 = \frac{2}{3}x$

$+1 \quad +1$

$y = \frac{2}{3}x + 1$

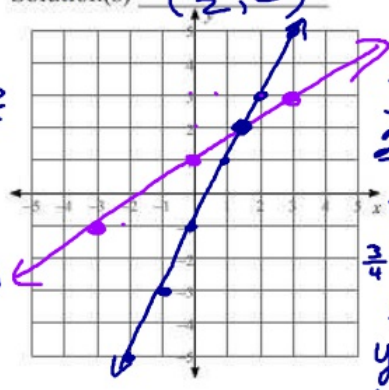
$4x - 2y = 2$

$-4x \quad -4x$

$\frac{-2y}{-2} = \frac{-4x}{-2} + \frac{2}{-2}$

$y = 2x - 1$

Solution(s) (3/2, 2)



$2x - 1 = \frac{2}{3}x + 1$

$-\frac{2}{3}x \quad +1 \quad -\frac{2}{3}x \quad +1$

$2x - \frac{2}{3}x = 2$

$\frac{6x}{3} - \frac{2x}{3} = 2$

$\frac{3}{4} \cdot \frac{4}{3}x = 2 \cdot \frac{3}{4}$

$x = \frac{3}{2}$

$y = \frac{2}{3}\left(\frac{3}{2}\right) + 1$

$y = 1 + 1 = 2$

$y = 2$