Answer Key

Tutor Review for Unit 4

1) $\frac{2}{3}x + 13 > -5$ -13 -18

$\frac{3}{2} \cdot \frac{2}{3}x > -18 \cdot \frac{3}{2}$

$x > -27$

2) $\frac{1}{2}y + 8 = 1\frac{1}{4}$

$\frac{1}{2}y + \frac{8}{1} = \frac{5}{4} - \frac{32}{4}$ -8 $-\frac{5}{1}$

$\frac{2}{1} \cdot \frac{1}{2}y = -\frac{27}{4} \cdot \frac{2}{1}$

$y = -\frac{27}{2}$

3) Put in order from least to greatest (2) (1) (3)

20 out of 47, $\frac{2}{5}$, 0.43

$\frac{20}{47} = .426$, $\frac{2}{5} = .400$, 0.430

4) Terminating or Repeating Decimals?

$\frac{3}{6}$,	$\frac{2}{9}$,	$\frac{4}{11}$,	$\frac{22}{99}$,	$\frac{3}{8}$
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5) Convert to Fractions

4.28, 6.15, $2.\overline{5}$, $4.\overline{28}$, $6.\overline{15}$, 2.5

$4\frac{25}{100} = 4\frac{1}{4}$ $6\frac{15}{100} = 6\frac{3}{20}$ | $2\frac{5}{9}$ | $4\frac{28}{99}$ | $6\frac{15}{99} = 6\frac{5}{33}$ | $2\frac{1}{2}$

6) Which is equivalent to 3.68

a. $3\frac{6}{8}$ b. $3\frac{68}{10}$ c. $3\frac{6}{68}$ d. $3\frac{17}{25}$

$3\frac{68}{100} = 3\frac{17}{25}$

7) Which fraction is repeating

$\frac{7}{8}$, $\frac{5}{16}$, $\frac{7}{9}$, $\frac{4}{5}$

$\frac{7}{8} = 8\overline{)7.000}$ 0.875 -640 60 -56 40

$\frac{5}{16} = 16\overline{)5.0000}$ $.3125$ -48 20 -16 40 -32 80

$\frac{7}{9} = .777$ $.77$ $9\overline{)7.00}$ -63 70 63 70

8) Simplify: $\frac{5}{6} \div \frac{2}{3} + \frac{1}{5}$

$\frac{5}{6} \cdot \frac{3}{2}$ $\frac{5}{4} + \frac{1}{5}$ $\frac{25}{20} + \frac{4}{20} = \frac{29}{20}$ or $1\frac{9}{20}$

9) $\left[-\frac{4}{1}\left(\frac{1}{2}\right)\right] - \left[-\frac{4}{1}\left(\frac{3}{2}\right)\right]$

$\left[-\frac{4}{2}\right] - \left[-\frac{12}{2}\right]$

$-2 + 6 = 4$

10) Put in order least to greatest

a. $2\sqrt{3}$, 1.5, 4, 2π

b. $3\sqrt{3}$, 4, 3π, 8.2

11) Solve: $(\sqrt{x+4})^2 = 10^2$

12) $\sqrt[3]{n} - 7 = -4$

13) $-9 = x^2 - 130$

14) Which number is more than 14 but less than 15?

a. $\sqrt{196}$ b. $\sqrt{210}$ c. $\sqrt{225}$ d. $\sqrt{250}$

15) Simplify : $\sqrt{32}$, $\sqrt{54}$, $\sqrt{90}$, $\sqrt{48}$

16) Square board with an area of 78. What is the approximate side length?

17) Square board with an area of 139. What is the approximate side length?

18) Solve: $(\sqrt{x+9})^2 = 15^2$

19) Solve: $(\sqrt{x-6})^2 = 10^2$

20) Solve: $x^2 + 25 = 125$

21) Solve: $x^3 + 79 = 15$