April.15th, 2016

Unit 2 Review

Write the decimal equivalent of each:

2-1 1) $\frac{1}{3}$ $(=\frac{3}{9})$ $= 0.\overline{3}$

2) $\frac{3}{4}$ $= 0.75$

3) $\frac{4.2}{5.2}$ $(=\frac{8}{10})$ $= 0.8$

4) $\frac{5}{8}$ $(\frac{1}{8} = 0.125)$ $= 0.625$

Write the fractional equivalent of each.

5) 0.5 $= \frac{1}{2}$

6) 0.375 $= \frac{3}{8}$

7) $0.\overline{4}$ $= \frac{4}{9}$

8) $0.\overline{24}$ $= \frac{24}{99} = \frac{8}{33}$

2-2 Write the following percentages as both a decimal and a fraction.

9) 150% $= 1.5$ $= 1\frac{1}{2}$ $= \frac{3}{2}$

10) 66% $= 0.66$ $= \frac{66}{100} = \frac{33}{50}$

11) $33\frac{1}{3}\%$ $= 33.\overline{3}\%$ $= 0.333\overline{3}$ $= 0.\overline{3}$ $= \frac{1}{3}$

12) 287.5% $= 2.875$ $= 2\frac{7}{8}$ $= \frac{23}{8}$

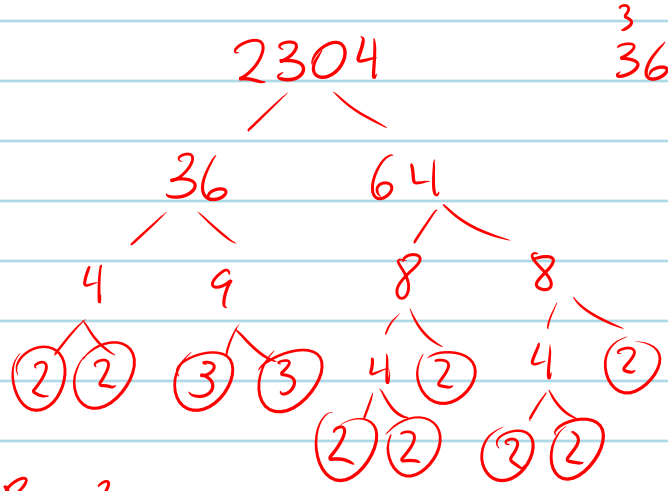
2-3 Identify as rational or irrational. If rational, write as fraction.

13) $0.151515\ldots$ rat. $= 0.\overline{15}$ $= \frac{15}{99} = \frac{5}{33}$

14) $\sqrt{0.0121}$ $= \sqrt{\frac{121}{10000}}$ $= \frac{11}{100}$

15) $\sqrt{1\frac{1}{3}}$ $= \sqrt{\frac{4}{3}}$ $= \frac{2}{\sqrt{3}}$ irr

2-4 16) Find the square root of 2304 using the prime factoring technique.



$$3\overline{)36}\,\overline{)2304}\quad 64$$
$$216$$
$$144$$

$2304 = 2^8 \cdot 3^2$

$\sqrt{2304} = \sqrt{2^8 \cdot 3^2} = 2^4 \cdot 3 = 16 \cdot 3 = 48$

2-5) Complete the table

	Radius	Diameter	πd or $2\pi r$ Circumference	πr^2 Area
17)	3	6	6π	9π
18)	6	12	12π	36π
19)	$\frac{5}{2}$	5	5π	$\frac{25\pi}{4}$
20)	$\frac{9}{2}$	9	9π	$\frac{81}{4}\pi$

Do Practice 2