

Math 60, Friday, 4/4/14

Please Turn in your Student Info Sheet

Get out your homework for 1.2

Q's on 1.2

Checkpoint #1 on 1.1 and 1.2

New material 1.3

Scavenger Hunt handout - due Apr 21st

125
99
149
109

99. $\frac{1}{3}(x-2) = \frac{1}{5}(x+4) + 3$; 26

$\frac{1}{3}(26-2) \stackrel{?}{=} \frac{1}{5}(26+4) + 3$

$\frac{1}{3}(\frac{24}{1}) \stackrel{?}{=} \frac{1}{5}(\frac{30}{1}) + 3$

$8 \stackrel{?}{=} 6 + 3$

$8 \neq 9$

26 is not a
solution

109. $\frac{1}{7}x + \frac{1}{8}x = 12$

$x \cdot \frac{1}{7} + x \cdot \frac{1}{8} = 12$

125. a) $H = \frac{7}{10}(\underline{220} - 20)$

$= \frac{7}{10}(\frac{200}{1})$ or $\frac{1400}{10} = 140$

$= 140$ beats per minute

✱ The lower limit of the heart range
is 140 beats per minute.

Section 1.3 - The real numbers

Real Numbers

Rational Numbers
"fractional"

Fractions $\rightarrow \frac{1}{2}, \frac{2}{3}$

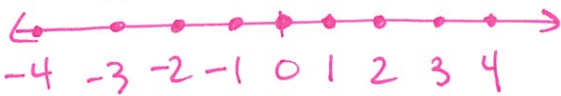
Decimals $\left\{ \begin{array}{l} \rightarrow \text{terminating} \\ \rightarrow \text{repeating} \end{array} \right.$.5 .3

$$\sqrt{9} = 3$$

$$\sqrt{100} = 10$$

↑
perfect square
8.326

Integers



Positive and negative
whole numbers

Whole Numbers

0, 1, 2, 3, ...

"0" is the 0 is whole

Natural Numbers

1, 2, 3, ...

Counting Numbers

Irrational Numbers

$\pi, \sqrt{3}$

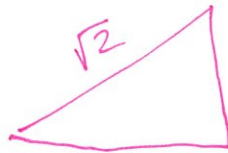
$\sqrt{7}$

$\sqrt{21}$

↑
not a
perfect
square

$$\sqrt{9} = 3$$

$$\sqrt{100} = 10$$



$$34. \{-7, -\bar{6}, 0, \sqrt[=7]{49}, \sqrt{50}\}$$

a. Natural numbers: $7 = \sqrt{49}$

b. whole numbers: $0, \sqrt{49} = 7$

c. integers: $-7, 0, \sqrt{49} = 7$

d. rational: $-\bar{6}, -7, 0, \sqrt{49} = 7$

e. irrational: $\sqrt{50}$

f. real: $-7, -\bar{6}, 0, \sqrt{49}, \sqrt{50}$

Imaginary numbers

$$\sqrt{-25}$$

$$i = \sqrt{-1}$$

$$5 \cdot 5 = 25$$

$$-5 \cdot -5 = 25$$

38. $-7, -8, \text{etc.}$

40. $0, 4.3, \bar{3}$

Less than and Greater than

< >

46. $4 \boxed{>} -3$

50. $-\frac{5}{2} \boxed{<} -\frac{5}{3}$
 $-2\frac{1}{2} \quad -1\frac{2}{3}$



64. $-5 \leq -8$ False



66. $-14 \leq -14$ True

Absolute Value

$$|2| = 2$$

$$|-2| = 2$$

$$74. \quad |-9| = 9$$

$$76. \quad \left| \frac{4}{5} \right| = \frac{4}{5}$$

$$78. \quad |-\sqrt{29}| = \sqrt{29}$$

