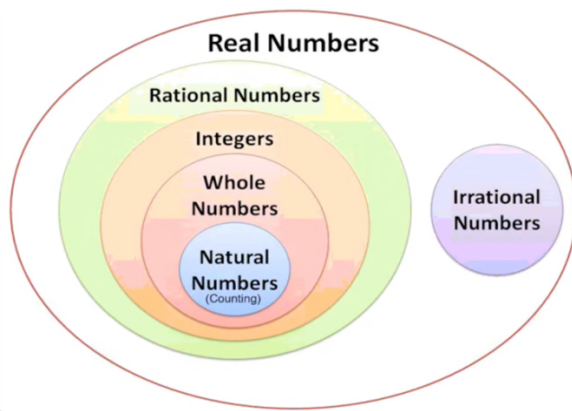


HOMEWORK 14

January 24, 2021

*I would like to remind you that the homework should be done on a separate piece of paper.
There is not enough space on this handout to show all work. **You must show all steps!***



1. Determine all the sets the number belongs to:

a) -6

b) $\sqrt{6}$

c) $\frac{15}{7}$

d) $-\frac{8}{9}$

2. Convert to base-4. Please, use the table below to help you with conversion:

a) 46

b) 111

c) 78

d) 45

$4^4 = 256$	$4^3 = 64$	$4^2 = 16$	$4^1 = 4$	$4^0 = 1$

3. Compute:

$$\text{a) } \frac{2^{-2} + 5^0}{(0.5)^{-2} - 5(-2)^{-2} + \left(\frac{2}{3}\right)^{-2}} + 4.75 =$$

$$\text{b) } \frac{(0.6)^0 - (0.1)^{-1}}{(3 \div 2^3)^{-1} \cdot (1.5)^3 + \left(-\frac{1}{3}\right)^{-1}} =$$

Solve the following word problems by writing an equation. Make sure to show all steps!

4. Nicholas spent \$131 on shirts. Fancy shirts cost \$28 and plain shirts cost \$15. If she bought a total of 7 then how many of each kind did Nicholas buy?



5. A class of 195 students went on a field trip. They took 7 vehicles, some cars and some buses. Find the number of cars and the number of buses they took if each car holds 5 students and each bus holds 45 students.

