

Lab No. 2 - Answer Key

Do Not remove this key from
the ILC

Part I: C, G, A, H, D, B, E, B, F

Part II:

1. a. Composite; $54 = 2 \cdot 3 \cdot 3 \cdot 3$ b. Prime
c. Neither d. Composite; $360 = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 5$

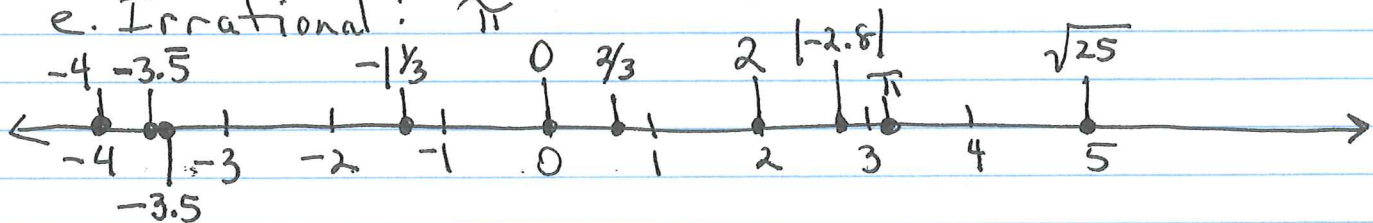
2. a. Natural numbers: $2, \sqrt{25}$

b. Whole numbers: $0, 2, \sqrt{25}$

c. Integers: $-4, 0, 2, \sqrt{25}$

d. Rational numbers: $-3.5, -3\bar{5}, -4, \frac{2}{3}, 0, 2, -1\frac{1}{2},$
 $|-2.8|, \sqrt{25}$

e. Irrational: π



3. (a) = (b) < (c) >

Part III: 1. -6 ; 6 ; No

2. a. $\frac{19}{20}$ b. $-\frac{1}{6}$ c. -1 d. $\frac{1}{10}$

3. a. 10 b. -312 c. 12 d. 23

e. 17 f. $-\frac{1}{5}$

4. a. 9 b. $-\frac{5}{11}$

Part IV

1. a. $4w - 48$ b. $-8x + 24$ c. $3a - (6b + 2)$

2. a. $-12x$ b. $13y + 8$ c. $8g - 18$ d. $4x - 5$

3. a. $x = -5$ b. $y = -4$ ~~c.~~ $x = -\frac{4}{3}$ d. $x = 5$

4. a. $y = -7$ b. Infinite number of solutions

c. No solution d. $x = -7$ e. $a = -11$

5. $9 - (4 + 11)$; -6

6. a. $2x - x^2$
 $x = \text{a number}$

b. $w = \frac{1}{2}l - 5$
 $w = \text{width}, l = \text{length}$

Part V

1. 192.4

2. 1567% increase

3. 5% decrease

4. The smaller number is 14; the larger is 15

5. Add 12 ounces of water

6. Add 16 ounces of water

7. The average speed of the bus is 45 mph