

A) Classify the following numbers. There will be more than one classification for each number.

- a. 8: Real, Rational, Integer, whole, counting
- b. -25: Real, Rational, Integer
- c. $17\frac{1}{2}$: Real, Rational
- d. -2.3: Real, Rational
- e. 0: Real, Rational, Integer, whole
- f. $-8\frac{3}{4}$: Real, Rational
- g. 14.57: Real, Rational
- h. 7.436821985438...: Real, Irrational
- i. -23.4545454545...: Real, Rational
- j. $620.\overline{386}$: Real, Rational

B) Give the opposite for the numbers listed below:

- a. 82: -82
- b. -25: 25
- c. -75: 75
- d. $34\frac{1}{2}$: $-34\frac{1}{2}$
- e. 7.345: -7.345
- f. 115: -115
- g. 92: -92
- h. -24.8: 24.8
- i. 0: 0
- j. $-4\frac{3}{8}$: $4\frac{3}{8}$

Key

c) Use an integer to represent the situation:

a. 5 units to the left of zero: -5

b. the opposite of 16: -16

c. 19 feet above sea level: 19

d. 20 miles underground: -20

e. a loss of 25 yards: -25

f. a gain of 35 pounds: 35

g. 8° below zero: -8

h. an increase of \$18: 18

i. a gain of 9 yards: 9

j. the opposite of -16: 16

k. a debt of \$15: -15

l. two floors down: -2

m. move to the left 10 steps: -10

n. fifteen miles uphill: 15

o. slide to the right 6 seats: 6

p. winning \$25: 25

q. losing \$0.50: -0.5

r. market went up 2.8 points: 2.8

s. temperature dropped 15° : -15

t. gained 10 yards and then lost 10 yards: 0