College Algebra Name:

Sec. 1.3 Operations on Real Numbers and Order of Operations, pp. 17-26

You are already very familiar with operations on Reals, so let’s get to work!

Pg. 17, Practice 1 Try these first without a calculator, then check your answers with one.

1. -6 + (-2) b. 5 + (-8) c. -4 + 9

d. (-3.2) + (-4.9) e. -3/5 + 2/3 f. -5/11 + 3/22

Pg. 18, Practice 2

1. 3 – 11 b. 6 – (-3) c. -7 – (-5)

d. 4.2 – (-3.5) e. -5/7 – 1/3 f. 3 – 1.2

g. Subtract 9 from 2

Pg. 18, Practice 3

1. 13 + 5 – 6 b. -6 – 2 + 4

Pg. 19, Practice 4

1. (-5)(3) b. (-7)(-1/14) c. 5.1(-2)

d. 14(0) e. (-1/4)(8/13) f. 6(-1)(-2)(3)

g. 5(-2.3)

Pg. 20, Practice 5

1. -16/8 b. -15/-3 c. -2/3 ÷ 4

d. 54/-9 e. -1/12 ÷ (-3/4) f. 0/-7

Try This: -7/0

Pg. 21, Practice 6

1. 2**3** b. (1/3)**2** c. -12**2**

d. (-12)**2** e. -4**3** f. (-4)**3**

Concept Check: Is (-8.2)**7** positive or negative?

Pg. 22, Practice 7

1. √49 b. √(1/16) c. - √64

d. √-64 e. √100

Think About It! **Why is the statement below false?** What symbol must be inserted in the equation to make it true?

**√25 = ±5**

Pg. 22, Practice 8

1. ∛64 b. (-1)^(1\/5) c. ∜10,000

Pg. 23, Practice 9 Order of Operations (PEMDAS)

1. 20 – 3 **·** 4 b. 3(5 – 8)2 c. │-5│2 + 4

√4 – 3

Pg. 24, Practice 10

Simplify: 5 – [(3 – 5) + 6(2 – 4)]

Pg. 24, Practice 11

1. Simplify: -2√(12 + 4) – (-3)2

62 + │1 – 9│

Pg. 25, Practice 12 Evaluate each expression when x = 16 and y = -5

1. 2x – 7y b. -4y2 c. √x – y

y x

Pg. 26, Practice 13 Complete the table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Degrees Celsius | x | -5 | 10 | 25 |
| Degrees Fahrenheit | 9x/5 + 32 |  |  |  |

**HOMEWORK: HAND IN**

Pg. 26 (1-8); Pp. 27 – 29 (2 – 112, evens) It isn’t necessary to write out each problem, just the answers. Show the work for those that require it.