Midterm Review Checklist (P1)

Are you comfortable with each type of problem listed below? If yes, complete the example and check off the box. If not, review your notes for that section, try the example and check your answer to make sure you are correct. Any topics that you are still unsure about, you should be sure to follow up in class.

Chapter 1: Expressions, Equations and Functions

□ I can evaluate a basic algebraic expression (1.1)

Ex: $4 + 2w$ when $w = -3$

□ I can solve an order of operations problem (1.2)

Ex: $4 - 2 + 3 \div 3 \cdot 4$

□ I can translate verbal phrases into algebraic expressions, equations or inequalities (1.3/1.4)

Ex: 3 less than three times the sum of x and 7

□ I can decide if a given number is a solution to an equation or inequality. (1.4)

Ex: $2x + 1 \geq 9$ is 3 a solution?

□ I can decide if a relationship represents a function by analyzing input and output. I am also sure that my reasoning makes sense. (1.6)

Ex: Does the following represent a function? Why or why not?

x	1	2	2	3
y	4	7	3	4

□ I can write a rule for a function using the $\Delta y/\Delta x$ method. (1.6)

Ex: Write a rule for the function:

x	−3	0	3	6	9
y	1	3	5	7	9

Chapter 2: Properties of Real Numbers

□ I can perform operations with integers. (2.2,2.3,2.4,2.6)

Ex: $-6 \cdot (4) + 8$

□ I can apply the properties of absolute value and opposites. (2.1)

Ex: $-r + |3r|$ when $r = -4$

□ I can perform operations involving fractions. (2.2/2.3)

Ex: a) $-2\frac{1}{3} + 4\frac{1}{5}$

b) $3\frac{1}{2} \cdot 2\frac{1}{5}$

c) $\frac{3}{4} \div \frac{9}{8}$

□ I can combine like terms. (2.5)

Ex: $3 - 4x - 2 + 7x$

□ I can apply the distributive property. (2.5) **Ex:** $-4(2x - 5)$

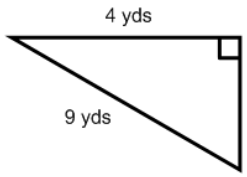
□ I can simplify division problems. (2.5) **Ex:** $\frac{9x-6}{-3}$

□ I can classify numbers as rational, irrational, integer or whole. (2.1) **Ex:** a) $-3\frac{3}{4}$ b) $\sqrt{12}$

□ I can order real numbers. (2.7) **Ex:** $-2.2, 2\frac{4}{5}, -\sqrt{12}, \sqrt{6}$

Chapter 11: Pythagorean Theorem

□ I can find the missing side of a right triangle. (11.4) **Ex:**



□ I can decide if three sides could possibly form a right triangle. (11.4) **Ex:** 13, 12, 5

Chapter 3: Solve Linear Equations

□ I can solve a one-step equation. (3.1) **Ex:** $4 - x = -9$

□ I can use reciprocals to solve one-step equations. (3.1) **Ex:** $-\frac{3}{5}x = 12$

□ I can solve two-step equations. (3.2) **Ex:** $2x - 4 = 12$

□ I can solve multi-step equations. (3.3) **Ex:** $4(x - 3) + 3 = 11$

□ I can solve equations with variables on both sides and interpret answers appropriately. (3.4) **Ex:** a) $2(x + 6) = 3(x + 4)$

b) $4(x - 5) = 2(x + 3)$

c) $6(3x + 6) = 9(2x + 4)$

d) $4(3x + 4) = 6(2x + 5)$

□ I can solve a proportion (3.5/3.6) **Ex:** $\frac{2}{2x+1} = \frac{4}{6x+1}$

□ I can solve a percent problem. (3.7) **Ex:** 30 is 45% of what number?

□ I can rewrite equations in function form. (3.8) **Ex:** $4x - 5y = 20$