

Math 27 / Intermediate Algebra (Fall 2009)

Instructor: James Schumaker
Course website: www.hawcc.hawaii.edu/math

What you need to do this week (after attending the first class)...

1. Purchase/**obtain** the **textbook** (Intermediate Algebra for College Students / 5th ed. by Robert Blitzer) **ASAP**...
2. Read the following three (3) webpages (online links located in the left-hand pane of the course homepage):
 - A. [Course Syllabus](#)
 - B. [Course Schedule](#)
 - C. [Course Info & Policies](#) (covered by **Quiz #01*** on **Mon., Aug.31st**)

* This first quiz consists of ten (10) multiple-choice and True-False questions. All subsequent quizzes will only cover math problems judiciously selected from the most recent **HomeWork** exercises, and will be given without any prior notice...

3. Look over **Class Notes** for each of the following dates (online links are located in the right-hand pane of the course homepage):
 - A. [08/24/09](#)
 - B. [08/26/09](#)

I. Sets –

A. Symbols: $\{ \}$, \emptyset , \in , \notin

B. Number Sets (p.8) – See Figure 1.3

$$1. \mathbb{N} = \{1, 2, 3, \dots\}$$

$$2. \mathbb{W} = \{0, 1, 2, 3, \dots\}$$

$$3. \mathbb{Z} = \{\dots, -3, -2, -1, 0, 1, 2, 3, \dots\}$$

\mathbb{N} , \mathbb{W} & \mathbb{Z} are all in “roster” notation

$$4. \mathbb{Q} = \{a/b \mid a \in \mathbb{Z}, b \in \mathbb{Z}, \text{ and } b \neq 0\}$$

$$= \{x \mid x \text{ is a terminating or a repeating decimal}\}$$

$$5. \mathbb{I} = \{x \mid x \text{ is a non-terminating, non-repeating decimal}\}$$

$$6. \mathbb{R} = \{x \mid x \text{ is a decimal}\}$$

$$= \mathbb{Q} \cup \mathbb{I}$$

\mathbb{Q} , \mathbb{I} & \mathbb{R} are all in “set-builder” notation

II. Examples (pp.10-12): Exercises #34,68,14,80

HW: Read pp.2-10 (text)

pp.10-12 / Exercises #1-97 (every other odd)

I. Absolute Value (p.15):

$|x|$ = distance from zero (on a number line)

II. Opposites:

A. $-(-a) = a$

B. $a - (-b) = a + b$

III. Division involving Zero:

A. $0 \div a = 0$

e.g., $0 \div 7 = 0$ (since $0 = 7 \times 0$)

B. $a \div 0$ is “undefined”

e.g., $7 \div 0 = ?$ (requires $7 = 0 \times ?$)

note: no such number exists, *i.e.*, undefined

IV. Distributive Property (p.21):

$$a(b \pm c) = ab \pm ac$$

V. Examples (pp.23-25): Exercises #8,46,90,100,
122

HW: Read pp.13-23 (text)

pp.24-25 / Exercises #1-145 (every other odd)