

Algebra I Class Schedule for Thursday, November 6, 2008

Materials:

1. Pencils (in the case on my desk)
2. Calculators (in the case on my desk)
3. Handouts (attached)
4. Notebooks and Binders (in class)

NAME:

Do Now:

- I. From Mixed Number to Improper Fraction to Mixed Number
Fill in the blanks!

| Operation | First Step | Improper Fraction Math Key! | Mixed Number |
|--------------------------------------|------------|--------------------------------|--------------|
| $1\frac{2}{3} + 3\frac{1}{4}$ | | | |
| $5\frac{2}{9} - 3\frac{1}{3}$ | | | |
| $(2\frac{7}{8})(4\frac{1}{16})$ | | | |
| $(4\frac{2}{3}) \div (2\frac{1}{3})$ | | | |

Ex:

$$1 \quad \left[\begin{array}{c} \xrightarrow{+} \\ 1\frac{2}{3} \\ \xleftarrow{-} \\ x \end{array} \right] = \frac{5}{3}$$

$$50 \overline{) 1653} \begin{array}{r} 33 \text{ R} 3 \\ -1650 \\ \hline 3 \end{array} \quad \text{or} \quad 33\frac{3}{50}$$

EXAMPLE 6 Analyze a conditional statement

Identify the hypothesis and the conclusion of the statement “If a number is a rational number, then the number is an integer.” Tell whether the statement is *true* or *false*. If it is false, give a counterexample.

Solution

Hypothesis: a number is a rational number

Conclusion: the number is an integer

The statement is false. The number 0.5 is a counterexample, because 0.5 is a rational number but not an integer.

**GUIDED PRACTICE** for Examples 4, 5, and 6

For the given value of a , find $-a$ and $|a|$.

8. $a = 5.3$

9. $a = -7$

10. $a = -\frac{4}{9}$

Identify the hypothesis and the conclusion of the statement. Tell whether the statement is *true* or *false*. If it is false, give a counterexample.

11. If a number is a rational number, then the number is positive.

12. If the absolute value of a number is positive, then the number is positive.

2.1 EXERCISES**HOMEWORK KEY**

○ = WORKED-OUT SOLUTIONS
on p. WS3 for Exs. 7, 29, and 53

★ = STANDARDIZED TEST PRACTICE
Exs. 3, 4, 39, 50, 56, and 59

SKILL PRACTICE

- VOCABULARY** Copy and complete: A number is a(n) ? if it can be written in the form $\frac{a}{b}$ where a and b are integers and $b \neq 0$.
- VOCABULARY** What is the opposite of -2 ?
- ★ **WRITING** Describe the difference between whole numbers and positive integers.
- ★ **WRITING** For a negative number x , is the absolute value of x a *positive number* or a *negative number*? Explain.

EXAMPLE 1
on p. 64
for Exs. 5–13



GRAPHING AND COMPARING INTEGERS Graph the numbers on a number line. Then tell which number is greater.

- | | | |
|-------------------|-----------------|--------------------|
| 5. 0 and 7 | 6. 0 and -4 | 7. -5 and -6 |
| 8. -2 and -3 | 9. 5 and -2 | 10. -12 and 8 |
| 11. -1 and -5 | 12. 3 and -13 | 13. -20 and -2 |

Next: Do the following problems, using your text book. Following the instructions, and place your answers here

Page 67: 6, 8, 10, 13

Number Lines ↙

5. _____ \longleftrightarrow

6. _____ \longleftrightarrow

8 _____ \longleftrightarrow

10. _____ \longleftrightarrow

13. _____ \longleftrightarrow

What are the opposites of the following numbers or terms:

13.) -13 _____

14.) a _____

15.) $b + a$ _____

16.) $2\frac{1}{2}$ _____

What is the remainder for the following?

13.) $325 \div 60$ _____

14.) $23 \div 4$ _____

15.) $100 \div 12.5$ _____

16.) $7 \div 3$ _____

Challenges: Substitute the values shown into the expressions and solve them.

p. 82; 32 – 37

$$x = 3.6$$

$$y = 6.6$$

$$z = -11$$

Example:

32.) $(x - y) - |z|$

$$(3.6 - 6.6) - |-11|$$

$$(-3) - |-11|$$

$$(-3) - 11 = -14$$

$x = 3.6$

$y = 6.6$

$z = -11$

$33.) (x - |-y|) - z$

$34.) x - |y - z|$

$35.) (-x - y) - z - 5$

$36.) -z + y - x - (-2.4)$

Good work!