

Assignment VII: due Feb. 23

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Winter Quarter Algebra Initiative

1. Solve the following inequalities algebraically being very careful to use the words AND and OR correctly. Write sentences to explain the logical flow of your solution. Be sure your examples are correct.

a)

$$|3x - 4| < 9$$

b)

$$|4 - 7x| \geq 16$$

2. Solve problem 1) graphically using your graphing calculator and turn in a sketch of the graph.

3. Write three multiplication problems for numbers that can be solved mentally using basic algebraic rules like squaring a binomial or product of sum and difference. Indicate how a mental solution would work.

4. Multiply $(3x + 2y + u)(3x + y + 2u)$. Write the answer with as few monomials as possible.

5. A ball is dropped from the Sears tower and falls with acceleration due to gravity of 32 ft per second per second. Assuming the Sears tower is 1400 feet tall, how many seconds did it take the ball to drop?

6. Read CME: pages 641-650. Be prepared to discuss the unusual features of this section. Do problem 2 page 641, 1a and 1b page 649, 14a and 14b page 651.

7. Read CME: page 661-665.