Equations Quiz...Math 1

- This quiz will be calculator inactive!!
- Solve multi-step equations
- Ordering rational and irrational numbers from least to greatest
- Estimating a square root to the nearest hundredth using a number line
- Classifying subsets of a number
- Simplifying numbers that are repeating decimals
- Equation word problems
- Consecutive numbers word problem

**Solve:**

1. \( \frac{2p}{3} + \frac{p}{4} - \frac{1}{6} = \frac{7}{2} \)
2. \( 12(y + 5) = 13y + 2 \)
3. \(-2(5 + 6m) + 16 = -90 \)
4. \( 8(4u - 1) - 12u = 11(2u - 6) \)
5. \( \frac{17 - m}{4} = -10 \)
6. \( 4(2r - 8) = \frac{1}{7}(49r + 70) \)
7. \( \frac{1}{4} - \frac{2}{3}y = \frac{3}{4} - \frac{1}{3}y \)
8. \( 11 - 2(3m - 10) = 5(4 - m) \)

9. Order the following from least to greatest: \( -3, \sqrt{31}, \sqrt{11}, 5.5, -\frac{60}{11} \)
10. Estimate \( \sqrt{75} \) to the nearest hundredth
11. Name the subsets of real numbers that describe \( \sqrt{50} \)
12. Name the subsets of real numbers that describe 80
13. Simplify: \( 0.5 + \frac{2}{3} \)
14. Simplify: \( 0.5 \cdot \frac{2}{3} \)
15. Simplify: \( 0.5 \div \frac{2}{3} \)

For each word problem: Define the variable (*let statement*), write and solve an equation, and then write your answer in a complete sentence.

16. Three less than 11 times a number is the same as the number decreased by 13. Find the number.
17. One more than 3 times a number is the same as 5 times the number, decreased by 15. Find the number.
18. The price of a brick today is 49¢. This is 3¢ less than 4 times the price 20 years ago. What was the price 20 years ago?
19. The Backpacking Club is having some posters printed. The printer charges $180 plus $2.50 per poster. How many posters can be printed for $1000?
20. Find three consecutive odd integers such that the sum of the smallest and 4 times the largest is 61.