I'm **Pre-test 18**, who are you?

3.3 I can solve Algebraic equations. (embedded throughout the test)

3.4 I can solve Algebraic absolute-value equations.
1.1 I can complete a table and create a graph when given a function.
1.2 I can make a complete description of a function.
1.3 I can determine outputs for any function when given inputs.

$y = -|5x - 5| + 5$

Make a table and quick graph of this equation. Create a situation it could model and explain what each of its special points could represent. Verify x-intercepts.

2.1 I can write an equation given multiple representations of a linear function.
2.2 I can complete a table given multiple representations of a linear function.
2.3 I can create a graph given multiple representations of a linear function.
2.4 I can find the slope and intercepts of a linear function from multiple representations.
2.5 I can interpret the slope and y-intercept of a linear function from multiple representations.
4.2 I can determine the solution to systems of equations using multiple strategies.
4.4 I can interpret when a systems of equations has infinite solutions or no solution.
5.2 I can write the recursive equations for an arithmetic sequence.

a.) Find the equation going through (5, 7) and (8, 13).

i.) What's this line's x-intercept?

ii.) Verify the x-intercept.

b.) Rewrite the equation as an explicit equation.

c.) Rewrite the explicit equation as a recursive equation.

d.) Find the equation going through (-2, 3) and (-4, -3).

i.) What's this line's x-intercept?

ii.) Verify the x-intercept.

e.) Where do the lines from parts a and d intersect?

f.) Do the lines from parts a and d intersect at one place or at infinite places? How do you know? How could the line from part d be changed so that you could answer the previous two questions from part f differently?

4.1 I can write a system of equations to model a situation.
4.3 I can interpret the solution to a system of equations in context of a situation.

Craig and Coach are playing ping pong. Coach has two fewer than four times the number of points as Craig. If together the two men have 126 points, how many does each man have?

Write a system of equations and solve. Use a complete sentence with units to answer.

3.2 I can multiply binomials and polynomials.

Combine: $(4x - 5y)(3x + 2y - 6)$

3.5 I can rewrite multi-variable equations in terms of one of the variables.

Solve for x: $4x^7yt = 48$

5.3 I can convert between the recursive and the explicit equation for an arithmetic sequence.

If t(2) = 5, what's the explicit equation for the arithmetic sequence of t(n+1) = t(n) + 2?

7.1 I can calculate the multiplier given two points in an exponential representation.
7.2 I can convert between percentage change (increase/decrease) and a multiplier.
7.3 I can write an equation given multiple representations of an exponential function.
7.4 I can complete a table given multiple representations of an exponential function.
7.5 I can create a graph given multiple representations of an exponential function.
7.6 I can interpret if a situation is exponential growth or decay given a representation.

An exponential line passes through (2, 7) and (5, 5). What is it's equation? What is its multiplier (b) as a percentage? Is it growing or decaying? Create a table for x and y when x = 0, 1, 2, 3, 4, 5. Quick graph the line.

3.1 I can simplify expressions with integer exponents
7.7 I can simplify expressions with fractional exponents.

Rewrite and evaluate:

a.) $24^{3/4}$ b.) $\sqrt[5]{7^6}$ c.) $(4^{3/4})^5$

Fully simplify with no negative exponents:

d.) $\frac{3x^3}{9x^2}$ e.) $\frac{14x^3 18y^3}{7x^5 3x^9}$ f.) $\frac{(8y^3)(3x^3)^3}{12x^2 16y^2}$