Algebra Test 2

Work in your NOTEBOOK, AND SHOW ALL WORK!

1. Solve for x: $2x = 12$

2. Solve for x: $4x = 9$

3. Solve for x: $x + 6 = 14$
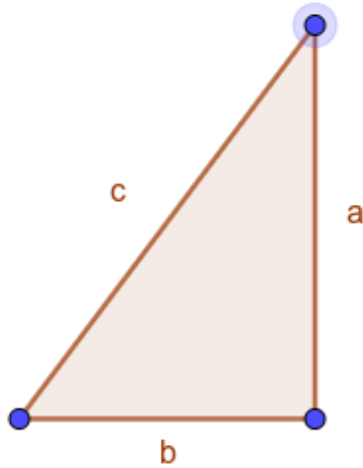
4. Solve for x: $x + 8 = 3$

5. Solve for x: $2x + 3 = 21$

6. Solve for x: $3x - 8 = 2x + 5$

7. Multiply out and simplify: $\dfrac{2}{3} \times \dfrac{7}{5}$

8. Divide and simplify: $\dfrac{3}{5} \div \dfrac{7}{4}$

9. In the right triangle below $a = 3$ and $b = 4$, solve for c:

10. Calculate: $\sqrt{36}$

11. Calculate: $\sqrt{3^2 + 4^2}$

12. Calculate: $\sqrt{0.25}$

13. Is $x = 10$ a solution of $2x + 3 = 25$?

14. Is $x = 3$ a solution of $x^2 - 2x - 3 = 0$?

15. You buy a meal for yourself and 3 of your friends. The meals all cost the same amount. You pay with a $20 bill and receive a $5 bill for change.

   (a) Write an equation for this situation (using materials or not)

   (b) Solve the equation

   (c) How much did each meal cost?

16. Write out a statement of the Pythagorean Theorem.

17. (Extra Credit): Multiply and simplify: $\dfrac{12}{20}$

18. (Extra Credit): Solve: $\dfrac{2}{3}x + 1 = 9$

19. (Extra Credit): Write a paragraph about your biography mathematician. Include at least 3 sentences.