

SCHOOLNOVA 2022: PLACEMENT TEST FOR MATH 6

1. Simplify the following expressions:

(a) $3(2x - 1) + x$

(b) $2a(a - 2) - a(a - 1)$

(c) $(2x - 1)(x + 1)$

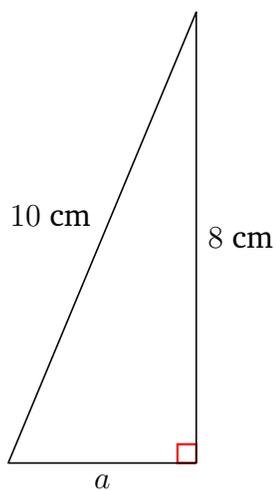
2. A dog weighs 2 pounds more than a cat. 3 cats and 4 dogs together weigh 43 pounds. How much does a dog weigh? And a cat?

3. Solve the equation:

$$(2x - 7) = \frac{1}{2}(28 - 2x)$$

4. Write the following binary number as a decimal: 110001_b

5. In the following triangle, find the length of a missing leg a .



6. (a) Simplify:

$$\frac{5^8 3^6 7^2}{15^6 7^4}$$

(b) Find the square root of your answer to the previous question.

7. Solve the equation

$$|6x - 1| = 3$$