Text Explanation

To solve this problem, we need to convert some language into various math operations. First of all, both the percent symbol (%) and the word "percent" mean "to divide by 100". Additionally, the word "of" just means "to multiply".

Using this information, let's simplify the expression given to us in the prompt:

$$3.6\% \text{ of } \frac{5x}{12} =$$

$$\frac{3.6}{100} \times \frac{5x}{12}$$

Let's get rid of that decimal in the fraction by multiplying both the numerator and denominator by 1, in the form of $\frac{10}{10}$:

$$\frac{3.6}{100} \times \frac{10}{10} \times \frac{5x}{12} =$$

$$\frac{36}{1000} \times \frac{5x}{12} =$$

$$\frac{36 \times 5x}{12 \times 1000}$$

We can further simplify this by canceling the common factors in the numerator and denominator:

$$\frac{12 \times 3 \times 5 \times x}{12 \times 5 \times 200} =$$

$$\frac{3x}{200}$$

Now we have a simplified expression that we need to compare the answer choices to. Once again, we'll need to convert from language to math and then simplify the expressions.

A. 3 percent of 20x

$$\frac{3}{100} \times 20x =$$

$$\frac{3 \times 20x}{100} =$$

$$\frac{3 \times 20 \times x}{20 \times 5} =$$

$$\frac{3x}{5}$$

B. *x percent of* $\frac{3}{2}$

$$\frac{x}{100} \times \frac{3}{2} =$$

$$\frac{3x}{200}$$

C. 3x percent of 0.2

$$\frac{3x}{100} \times 0.2 =$$

$$\frac{3x}{100} \times \frac{2}{10} =$$

$$\frac{3x \times 2}{100 \times 10} =$$

$$\frac{3 \times x \times 2}{100 \times 2 \times 5} =$$

$$\frac{3x}{500}$$

D. 0.05 percent of 3x

$$\frac{0.05}{100} \times 3x =$$

$$\frac{\frac{5}{100}}{100} \times 3x =$$

$$\frac{5}{100 \times 100} \times 3x =$$

$$\frac{5 \times 3x}{5 \times 20 \times 100} =$$

$$\frac{3x}{2000}$$

E. $\frac{3x}{200}$

Thus, the only two statements that are equivalent to the given $\frac{3x}{200}$ are answer choices **B** and **E**.