

**Chapter 5: Similarity**  
**Lesson 5-1: Using Proportions**  
**Classwork**

Name \_\_\_\_\_  
Date \_\_\_\_\_  
Period \_\_\_\_

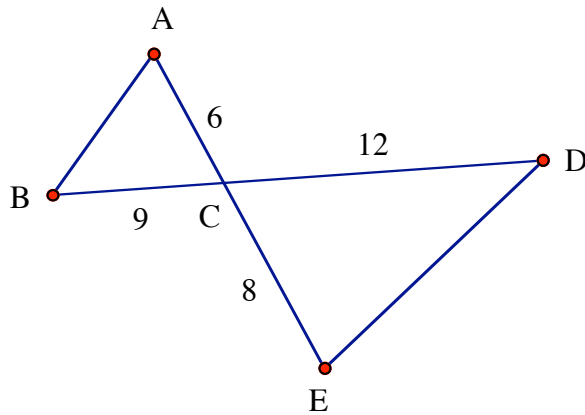
Express the following as a ratio in simplest terms.

1.  $\frac{6}{24}$

2.  $\frac{9}{12}$

3.  $\frac{9}{51}$

4.  $\frac{1000}{2500}$



For questions 5 - 10 refer to the above diagram.

5.  $\frac{AC}{CE}$

6.  $\frac{CE}{AE}$

7.  $\frac{AC}{AE}$

8.  $\frac{CD}{BC}$

9.  $\frac{BD}{CD}$

10.  $\frac{BD}{AE}$

Solve the following proportions.

11.  $\frac{16}{x} = \frac{4}{3}$

12.  $\frac{7x}{5} = \frac{42}{3}$

13.  $\frac{5}{8} = \frac{3x}{4}$

14.  $\frac{x+2}{4} = \frac{9}{2}$

15.  $\frac{x}{3} = \frac{x+2}{5}$

16.  $\frac{x-5}{x} = \frac{3}{4}$

17.  $\frac{x-1}{x+3} = \frac{3}{5}$

18.  $\frac{2x-5}{4} = \frac{4x-7}{4}$

19.  $\frac{10-x}{5} = \frac{7-x}{2}$

20.  $\frac{12}{4x+9} = \frac{18}{5x-4}$