**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**(3.6B) Similar Figures**

**1. In the diagram below ABC is**

**similar to DEC. If DE = 8, CD = 12, and DA = 3. What is the length of AB?**

**C**

**12**

**D E**

**3 8**

**A B**

**2. In the diagram below ABC is**

**similar to DEC. If AB = 8,**

**AC = 10, and DC = 25, find DE.**

**D**

**25**

**B**

**C E**

**8 10**

**A**

**3. In the diagram below ESF is**

**similar to RST. If SE = 8, ER = 6 and FT = 15, find SF.**

**S**

**E F**

**R**

**4. The figures below are similar.**

**Find the perimeter of quadrilateral**

**EFGH.**

**A 2 B 6 F**

**E**

**5 3**

**C 7 D**

**G H**

**5. In the diagram below ABC is**

**similar to DEC. If AC = 8,**

**DC = 12, and CE = 9, find BC.**

**E**

**A C D**

**B**

**6. RST is similar to VUT.**

**R S**

**7.2 mm**

**T**

**30 mm 18 mm**

**U V**

**24 mm**

**What is the length of RS?**

1. **3.3 millimeters**
2. **9.6 millimeters**
3. **9.0 millimeters**
4. **5.8 millimeters**

**7. Kate has 2 similar triangular pieces**

**of paper, as shown below.**

**18.0 cm 11.0 cm**

**12.0 cm p**

**Using the dimensions given, find the approximate length of the side labeled p.**

1. **2.4 centimeters**
2. **7.3 centimeters**
3. **16.5 centimeters**
4. **19.6 centimeters**

**8. The figures below represent similar**

**triangles. Using the dimensions given, find the approximate length of the side labeled x.**

**5 in**

**20 in 2 in**

**x**

**9. If a tree 40 feet tall casts a shadow**

**12 feet long, how long is the shadow**

**cast by a man 6 feet tall?**

**10. If a tree 6 feet tall casts a shadow**

**4 feet long, how high is a flagpole that casts a shadow 18 feet long at the same time of day?**