

EDUCATIONAL ASSIGNMENT for JOSEPH JOHN WUNDERLICH for 11th grade

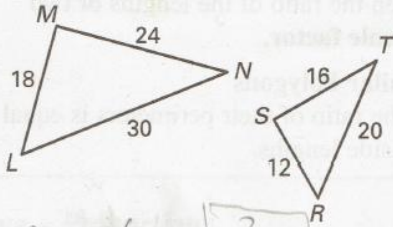
This assignment covers the following Educational Objectives (Subjects marked with a "■" are the main subject, and those marked with an "□" are secondary subjects):

- Geometry

Solve the following problems. Use a pencil.

check that the ratios of corresponding sides are equal.

1. $\triangle LMN \sim \triangle RST$



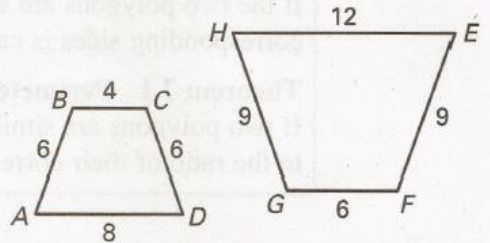
$$\frac{RS}{LM} = \frac{12}{18} = \frac{6}{9} = \frac{2}{3}$$

$$\frac{ST}{MN} = \frac{16}{24} = \frac{2}{3}$$

$$\frac{TR}{NL} = \frac{20}{30} = \frac{2}{3}$$

equal ratios

2. $ABCD \sim EFGH$



Same length

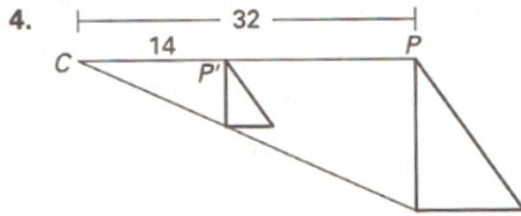
$$\frac{CD}{HG} = \frac{AB}{EF} = \frac{6}{9} = \frac{2}{3}$$

$$\frac{BC}{FG} = \frac{4}{6} = \frac{2}{3}$$

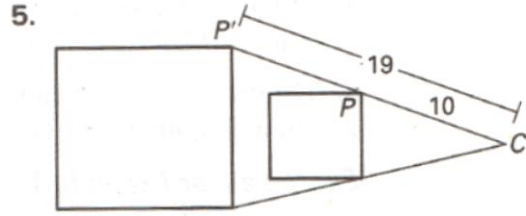
$$\frac{AD}{HE} = \frac{8}{12} = \frac{2}{3}$$

equal ratios

Find the scale factor of the dilation.

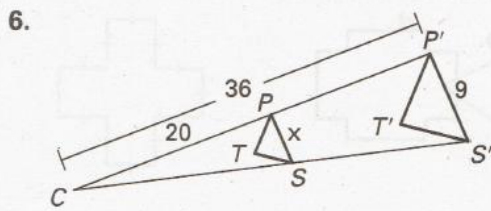


$$\frac{CP'}{CP} = \frac{14}{32} = \boxed{\frac{7}{16}}$$



$$\frac{CP'}{CP} = \boxed{\frac{19}{10}}$$

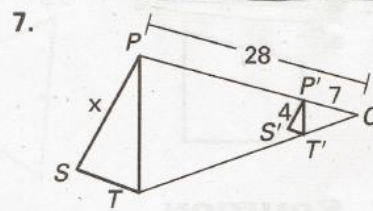
$\triangle P'S'T'$ is the image of $\triangle PST$ after a dilation. Find the value of x .



$$\frac{CP'}{CP} = \frac{P'S'}{P'S}$$

$$\frac{36}{20} = \frac{9}{x}$$

$$\boxed{x = 5}$$



$$\frac{CP'}{CP} = \frac{P'S'}{P'S}$$

$$\frac{28}{x} = \frac{7}{4}$$

$$\boxed{x = 16}$$