

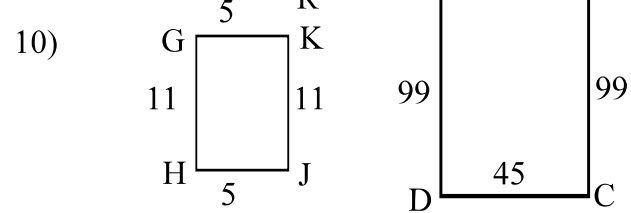
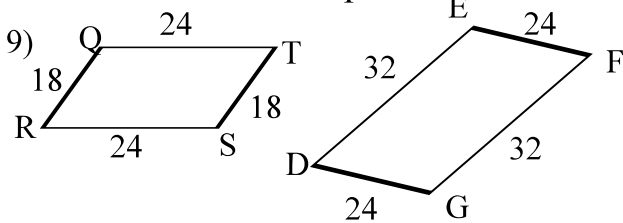
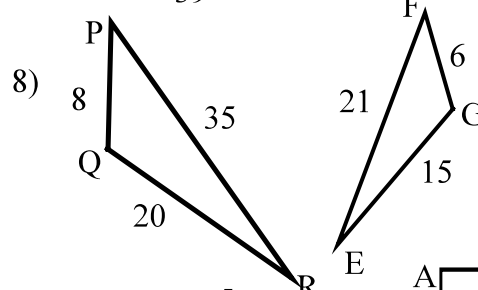
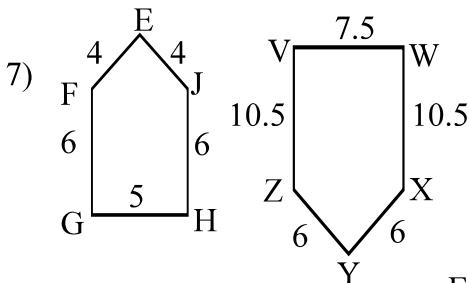
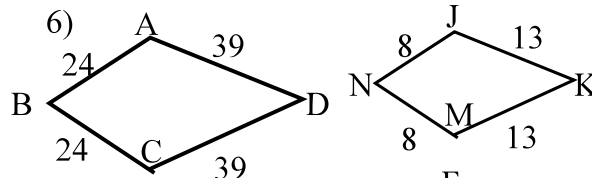
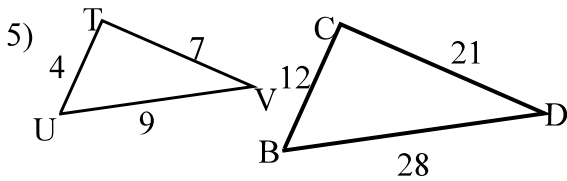
Ratios and Proportions 2.2

Geometry

The floor plan of the Whites' house has a scale of 1 inch = 4 feet. Answer the following questions.

- 1) On the floor plan, the garage is 5in by 7in. What are the dimensions of the actual garage?
- 2) On the floor plan, a bedroom is 3.5in by 4in. What are the dimensions of the actual bedroom?
- 3) The game room of the Whites' house is 18 feet by 25 feet. What are the dimensions on the floor plan?
- 4) The kitchen is 13 feet by 16 feet. What are the dimensions on the floor plan?

Determine whether the figures in each problem are similar. If they are, give a similarity statement and the scale factor.



Use the back of the worksheet for problems 11-13.)

- 11) John is $5\frac{1}{2}$ feet tall. He is standing next to a flag poll and wonders how high it is. His friend measures John's shadow and sees that it is $16\frac{1}{2}$ feet long. Then they measure the shadow of the flag pole, it is 105 feet long. How tall is the flag poll?
- 12) Bob has a motorcycle that produces 90 horsepower and goes 60 mph. If Stan's motorcycle produces 130 hp and has a power to speed ratio that is proportional to Bob's motorcycle, how fast does Stan's motorcycle go?
- 13) Cindy weighs 125 lbs. and consumes 2200 calories/day. Jim weighs 280 lbs. and his daily calorie consumption is proportional to Cindy's. What is Jim's calorie intake each day?