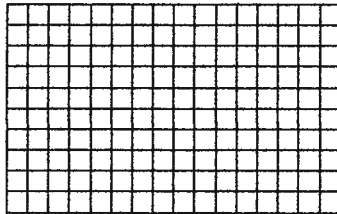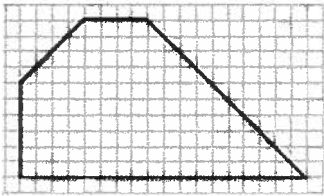1. Use graph paper to construct a figure similar to the one given, with sides that are 1/2 the length of the original. Explain how you know that the corresponding angles are equal.
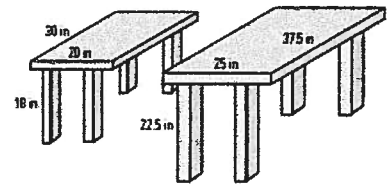

2. Draw and label the lengths of the sides of a rectangle that has a length of 8 cm and is similar to a rectangle that has a width of 10 cm and a length of 20 cm.

3. Barbie's house is 55 ft wide and 40 ft deep. A drawing of her property shows the house is 10 in wide and 7.3 in deep. What scale was used on the drawing?
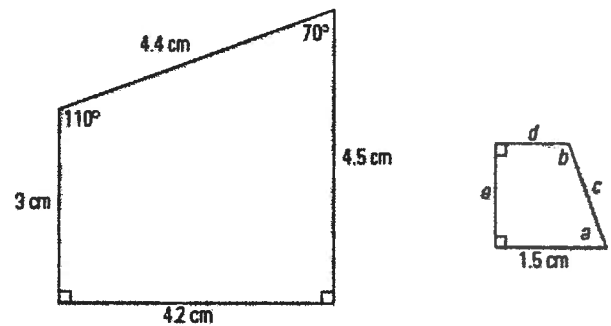
4. Xavier is building a staircase using scale drawings. On the drawing, the height of one stair is 0.5 cm and the depth is 0.9 cm. Xavier will use a scale factor of 40 to build the stairs. Calculate the height and depth of the stairs he will build.

5. The scale ratio (model: original) between two diagrams is 3:5. If one measure on the model is 45 mm, what was the measure on the original?

6. Simian has built two end tables. The second table is a slightly larger version of the first. Given the dimensions below, calculate what scale factor Simian used to make the larger table.
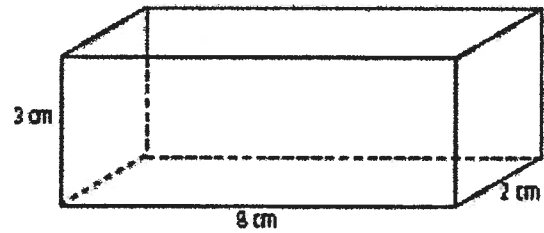

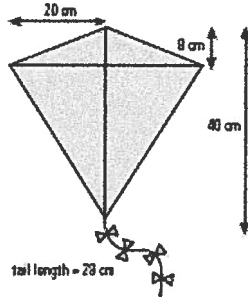7. Find the missing angles and measures of the following diagram.

8. A craft store uses small gift boxes to wrap purchases. They have one box that is 20 cm by 12 cm by 5 cm. Another box is larger by a scale factor of 1.3. What are the dimensions of the larger box?

9. Draw a rectangular prism similar to the one shown below with sides that are 1/2 the length of the original.

3 cm

8 cm

2 cm

10. Hazuki made a kite with the dimensions shown below. She decided it would work better if it were bigger. If her new kite tail has a length of 49 cm, what scale factor did she use, and what are the kite's other dimensions?

20 cm

8 cm

40 cm

tail length = 28 cm

11. A sporting goods store has miniature versions of tents on display. A six-person tent is 12'long by 10'wide. The miniature version has a length of 1 ½ inches.

a) What is the width of the miniature version?

b) What is the scale ratio (miniature:actual)?