Scale Factor Worksheet

Name: _____ Date: _____

A. FIND THE SCALE FACTOR

1. A rectangle is 4 cm wide and 7 cm long.

   A similar rectangle is 8 cm wide and 14 cm long.

   Scale factor = _____

2. A triangle has a side of 6 cm.

   The corresponding side of a similar triangle is 18 cm.

   Scale factor = _____

3. A shape has a height of 12 cm.

   Its enlarged image has a height of 30 cm.

   Scale factor = _____

4. A drawing is 5 cm long.

   The actual object is 25 cm long.

   Scale factor = _____

B. FIND THE NEW LENGTH

5. A side is 7 cm long. The scale factor is 3. New length = _____ cm
6. A side is 12 cm long. The scale factor is 2. New length = _____ cm
7. A side is 15 cm long. The scale factor is 1/3. New length = _____ cm
8. A side is 24 cm long. The scale factor is 1/4. New length = _____ cm

C. COMPLETE THE TABLE

Original Length	**Scale Factor**	**New Length**
5 cm	2	_____
8 cm	3	_____
20 cm	1/2	_____
18 cm	1/3	_____
9 cm	4	_____

D. WORD PROBLEMS

9. A photograph is 10 cm wide. It is enlarged by a scale factor of 2.5.

   What is the new width?

   Answer: _____

10. A model car is 15 cm long. The actual car is 30 times as long.

    What is the length of the actual car?

    Answer: _____

11. A map uses a scale factor of 1/100,000. A road measures 4 cm on the map.

    How long is the road in real life?

    Answer: _____

12. A rectangle has dimensions 6 cm × 10 cm.

    It is enlarged by a scale factor of 2.

    New dimensions: _____ cm × _____ cm

E. CHALLENGE

13. A shape has a side measuring 8 cm. Its enlarged image has a corresponding side measuring 20 cm.

    a) What is the scale factor?

    Answer: _____

    b) If another side of the original shape is 12 cm, what will its corresponding side be?

    Answer: _____ cm

14. A rectangle measures 18 cm × 24 cm. It is reduced by a scale factor of 1/3.

    What are the new dimensions?

    Answer: _____ cm × _____ cm