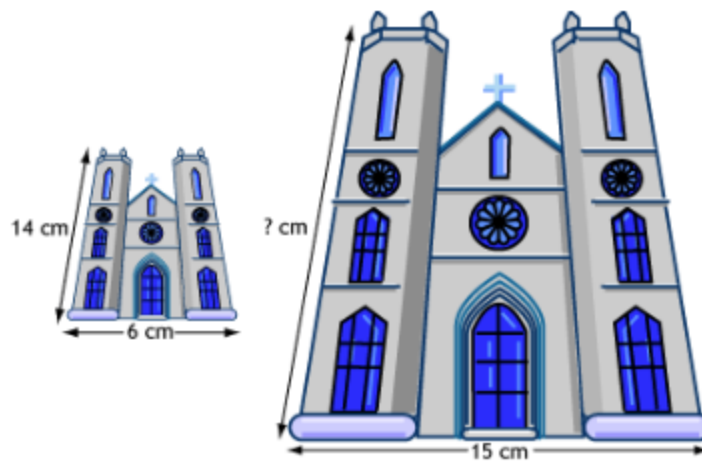**Topic 1: Using Ratios - Block 5 Homework**

1) Marco has a wallet sized photo that measures 2 by 3 inches. He wishes to enlarge the photo and print it on a regular sheet of paper that measures 8½ by 11 inches. *He does not want the photo to be distorted or cropped, and he wants to use a scale factor that is a whole number.*

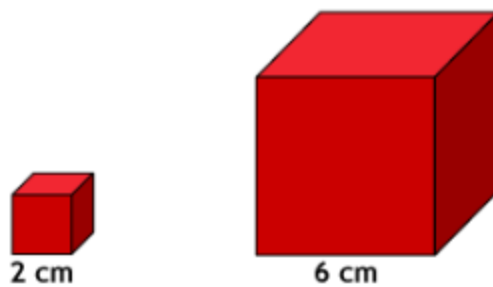   What is the largest possible copy of the photo that Marco can print on his printer paper?

2) Two scale drawings of the same cathedral are shown. Look carefully at the dimensions of the drawings. What is the height of the cathedral on the right?

3) The scale factor on the Xerox copy machine is set at $\frac{2}{5}$. You want to make a copy of a 20-inch by 35-inch poster. What will be the size of the new copy? (Hint: "Draw it out.")

4) The length, width, and height of a cube are all equal to 2 centimeters. The cube is enlarged by a scale factor of 3 so the new dimensions are all 6 centimeters.

2 cm   6 cm

By what scale factor does the **area of a side** of the cube increase?