7th Grade Blizzard Bag # 2 Math - Please complete all problems using a proportion to solve. You may type the answers into the document, or write them on a separate sheet of paper. If you have any questions, please email Mrs. Reeder @ lreeder@mybes.org

As an alternate assignment you may sign in and do IXL : 7th Grade skills J7 and J10 ALL

Example problem: If 2 inches represents 15 miles on a map, how far away are 2 cities that are 12 inches apart?

1. Set up a proportion: $\frac{\text{2 inches}}{\text{15 miles}} = \frac{\text{12 inches}}{\text{x miles}}$ (inches across from inches / miles across from miles)

2. Use cross-products to solve: $2x = 15(12)$

$$\frac{2x}{2} = \frac{180}{2}$$

$$x = 90 \text{ miles}$$

SCALE DRAWINGS AND MAPS Solve, using a proportion.

1. If 4 inches represents 100 miles on a scale drawing, how long would a line segment be that represents 50 miles?

2. On a map drawn to scale, 7 cm represents 280 km. How many kilometers are represented by a line 8 centimeters long?

3. On a scale drawing, 4 inches represents 25 miles. If a line segment on the drawing is 6 inches long, what distance does this line segment represent?

4. On a map drawn to scale, 2 cm represents 870 km. How long would a line segment be that represents 130 kilometers?

5. If 3 inches represents 90 miles on a scale drawing, how long would a line segment be that represents 240 miles?

6. On a scale drawing, 2 inches represents 30 feet. How many inches long is a line segment that represents 10 feet?

7. On a scale drawing of a planned office space, one inch represents 6 feet. How wide is the conference room if the width in the drawing is 3 inches?

8. If 2 cm represents 75 miles on a scale drawing, how long would a line segment be that represents 50 miles?

9. If 1 inch represents 8 miles on a map drawing, how many inches would represent 50 miles?

10. On a scale drawing of a house plan, one inch represents 10 feet. How many feet wide is the master bedroom, if the width in the drawing is 2.5 inches?

11. Write and solve your own scale problem.

12. Write and solve your own scale problem.