

KEY

EXERCISE 1.0

NAME _____

TOPOGRAPHIC MAPS - REVIEW

3. What is the scale (stated as a ratio) of a map where 1 inch = 1 mile? Show your calculations.

$$1 \text{ in} = 1 \text{ mile} \frac{5280 \text{ ft}}{\text{mi}} \cdot \frac{12 \text{ in}}{\text{ft}} = 63,360 \text{ in}$$
$$1 : 63,360$$

4. On a map drawn to a scale of 1 inch = 1 mile, what distance on the map represents 2,000 feet? Show your calculations.

$$1 \text{ in} = 1 \text{ mi} = 5280 \text{ ft}$$
$$\left(\frac{1 \text{ in}}{5280 \text{ ft}} \right) 2000 \text{ ft} = 0.38 \text{ in}$$

5. What is the scale (stated as a ratio) of a map where 1" = 2,000'? Show your calculations?

$$1'' = 2000 \text{ ft} = 24,000 \text{ in}$$
$$1 : 24,000$$

6. On a map drawn to a scale of 1:100,000, what distance is represented by 3 inches? Show your calculations.

$$(3 \text{ in}) (100,000) = 300,000 \text{ in} \frac{1 \text{ ft}}{12 \text{ in}} = 25,000 \text{ ft}$$

7. On a map drawn to a scale of 1:100,000, what distance is represented by 3 cm? Show your calculations.

$$(3 \text{ cm}) (100,000) = 300,000 \text{ cm} \frac{1 \text{ m}}{100 \text{ cm}} = 300 \text{ m}$$

8. A 4"-long ridge on an air photo is 2 miles on a map. What is the photo scale?

$$4 \text{ in} = 2 \text{ mi} \frac{5280 \text{ ft}}{\text{mi}} \frac{12 \text{ in}}{\text{ft}} = 126720 \text{ in}$$

6

$$\frac{4 \text{ in}}{4 \text{ m}} = \frac{126720 \text{ in}}{4 \text{ in}}$$

$$1 : 31680$$