

Exercise 3 Distance, Scale Verification and Conversion

Questions regarding distance and conversion between units of measurement:

One chain is equal to how many feet?

- a. 50
- b. 66
- c. 100
- d. 33

One mile is equal to how many chains?

- a. 5280
- b. 100
- c. 80
- d. 50

One mile is equal to how many feet?

- a. 5280
- b. 100
- c. 80
- d. 50

To convert from feet to meters, you would need to divide feet by what value?

- a. 66
- b. 3.2808
- c. 100
- d. 0.3048

Questions regarding scale and verification:

The USGS 7 ½ minute series topographic maps of the continental U.S. are mapped in what scale?

- a. 1:24000
- b. 1:2000
- c. 1:40
- d. 1:100

The scale of 1:24000 means what?

- a. 1 unit on the map equals 24000 units on the ground.
- b. 1 unit on the ground equals 24000 units on the map.
- c. 1 unit on the map equals 20 units on the map
- d. 1 unit on the map equals 2000 units on the map

A scale of 1:24000 is also equal to what?

- a. 1 inch = 12000 feet
- b. 1 inch = 80 chains
- c. 1 inch = 2000 feet
- d. 1 inch = 1200 feet

To measure a distance in feet on a 7 ½ minute series topographic map, which scale on an engineers scale is the best to use?

- a. 10 scale
- b. 20 scale
- c. 30 scale
- d. 60 scale

When measuring distances on a 7 ½ minute series topographic map with the 20 scale, one tic mark on the scale is equal to how many feet on the map?

- a. 10.
- b. 50.
- c. 66.
- d. 100.

To measure a distance in chains on a 7 ½ minute series topographic map, which scale on an engineers scale is the best to use.

- a. 10 scale
- b. 20 scale
- c. 30 scale
- d. 60 scale

When measuring distances on a 7 ½ minute series topographic map with the 30 scale, one tic mark on the scale is equal to how many chains on the map?

- a. 1
- b. 5.
- c. 80.
- d. 100.

The best way to verify the scale of a map is?

- a. Measure between known points of the map.
- b. Compare an engineers scale to the graphical scale on the map.
- c. Ask the source of the map about the scale accuracy
- d. Measure the map margins to see if they add up to the correct lat/long

Questions Regarding measuring distances on the map

The straight line distance, in feet, from the intersection of King Street and Minnesota Street to the intersection of Long Street and Mountain Street is?

- a. 5280
- b. 2640.
- c. 1500
- d. 3800.

The straight line distance, in chains, from the SE corner of Governor's Field to the intersection of Silver Sage Drive and Koontz Lane Is?

- a. 80
- b. 104
- c. 66
- d. 100

You are looking for a section corner. On the map, you scale a distance of 225 feet from a sharp bend in the road. After parking in a safe manner at the bend in the road, the best way to measure the scaled distance on the ground is?

- a. Pacing
- b. Using a 100 foot cloth tape
- c. Odometer on the vehicle.
- d. Wild guess.

Exercise 3 Distance, Scale Verification and Conversion (ANSWER KEY)

Questions regarding distance and conversion between units of measurement:

One chain is equal to how many feet?

- a. 50
- b. 66**
- c. 100
- d. 33

One mile is equal to how many chains?

- a. 5280
- b. 100
- c. 80**
- d. 50

One mile is equal to how many feet?

- a. 5280**
- b. 100
- c. 80
- d. 50

To convert from feet to meters, you would need to divide feet by what value?

- a. 66
- b. 3.2808**
- c. 100
- d. 0.3048

Questions regarding scale and verification:

The USGS 7 ½ minute series topographic maps of the continental U.S. are mapped in what scale?

- a. 1:24000**
- b. 1:2000
- c. 1:40
- d. 1:100

The scale of 1:24000 means what?

- a. **1 unit on the map equals 24000 units on the ground.**
- b. 1 unit on the ground equals 24000 units on the map.
- c. 1 unit on the map equals 20 units on the map
- d. 1 unit on the map equals 2000 units on the map

A scale of 1:24000 is also equal to what?

- a. 1 inch = 12000 feet
- b. 1 inch = 80 chains
- c. **1 inch = 2000 feet**
- d. 1 inch = 1200 feet

To measure a distance in feet on a 7 ½ minute series topographic map, which scale on an engineers scale is the best to use?

- a. 10 scale
- b. **20 scale**
- c. 30 scale
- d. 60 scale

When measuring distances on a 7 ½ minute series topographic map with the 20 scale, one tic mark on the scale is equal to how many feet on the map?

- a. 10.
- b. 50.
- c. 66.
- d. **100.**

To measure a distance in chains on a 7 ½ minute series topographic map, which scale on an engineers scale is the best to use.

- a. 10 scale
- b. 20 scale
- c. **30 scale**
- d. 60 scale

When measuring distances on a 7 ½ minute series topographic map with the 30 scale, one tic mark on the scale is equal to how many chains on the map?

- a. **1**
- b. 5.
- c. 80.
- d. 100.

The best way to verify the scale of a map is?

- a. Measure between known points of the map.
- b. Compare an engineers scale to the graphical scale on the map.**
- c. Ask the source of the map about the scale accuracy
- d. Measure the map margins to see if they add up to the correct lat/long

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The straight line distance, in chains, from the SE corner of Governor's Field to the intersection of Silver Sage Drive and Koontz Lane Is?

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