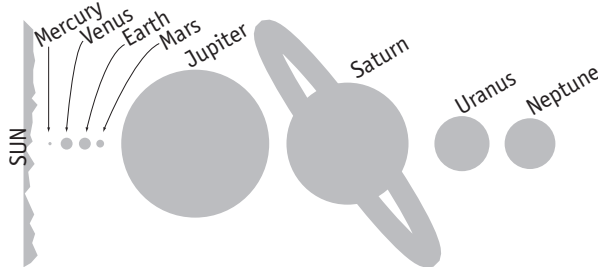


15. [Location]

Skill 15.1 Locating places using simple bearings (closest, left, first turn).

MMYellow 1 1 2 2 3 3 4 4
MMRed 1 1 2 2 3 3 4 4

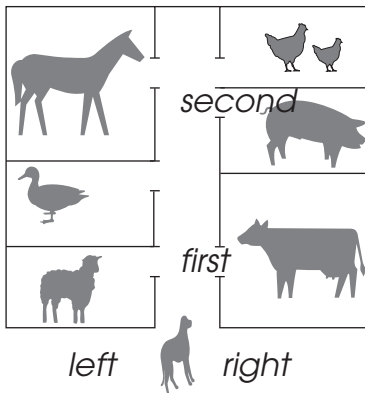
Q. In our Solar System which planet is between Mars and Neptune but closest to Mars?



A. Jupiter

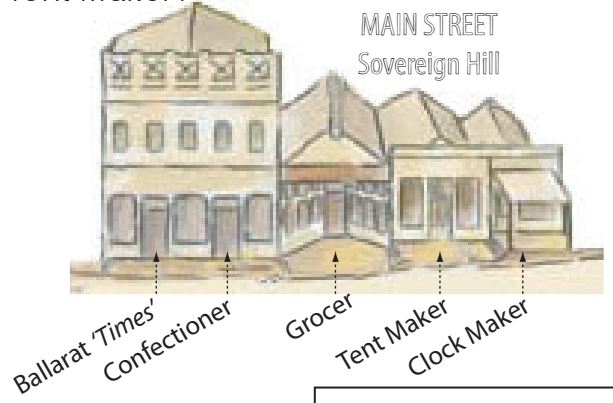
Check the meaning of any unknown terms used to describe location. *Between* means somewhere in the middle of the boundaries. *Closest* means the shortest distance from.

a) A dog enters a shed and goes into the pen that is second on the right. Which animal is it now with?

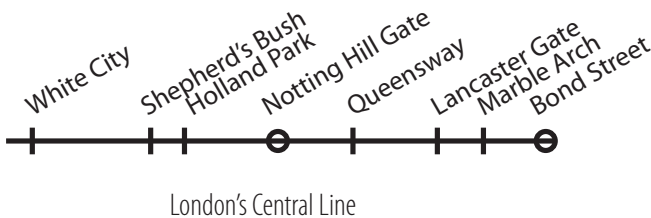


pig

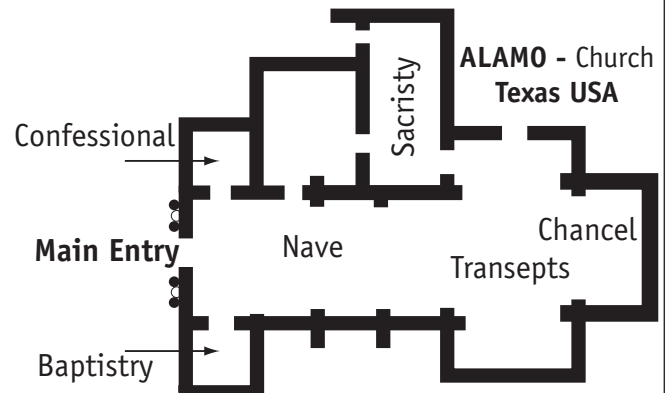
b) At Sovereign Hill, which building is between the Ballarat 'Times' and the Tent Maker but closest to the Tent Maker?



c) On the central line in London which station is between White City and Bond Street but closest to Bond Street?



d) From the main entry of the church in the Alamo compound you take the second opening on the left and then the first on the right. Where are you?



- Refer to the 4 compass points to find your bearings.
Hint: (Clockwise) - 'Never Eat Sea Weed' - North, East, South, West.

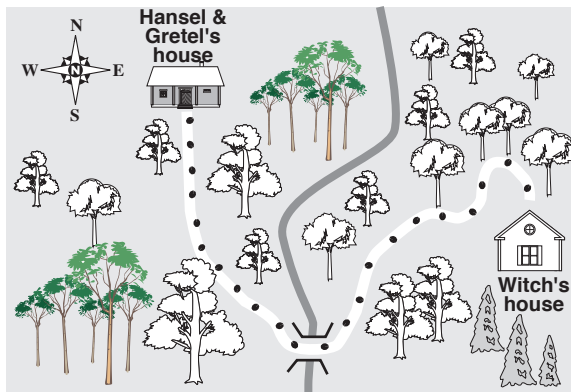
Q. Which capital city is east of Skopje, the capital of Macedonia?



A. *Istanbul*

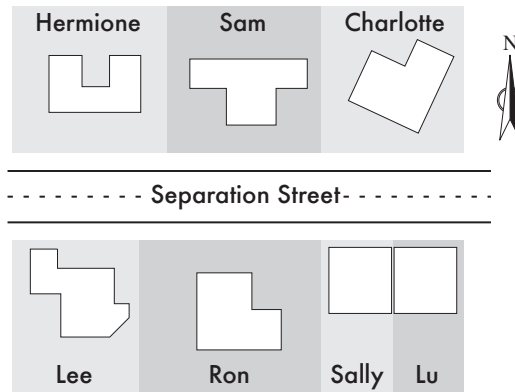
Find Skopje on the map. Consider that you are there. Imagine the central point of a compass on Skopje. Turn and face the direction of the arrow pointing east. Which capital city would you be looking at?

a) Hansel and Gretel left a trail along the forest path. In which direction did they walk when they first left their house?



south

b) Hermione's house is on the north side of Separation Street. On what side of the street is Ron's house?



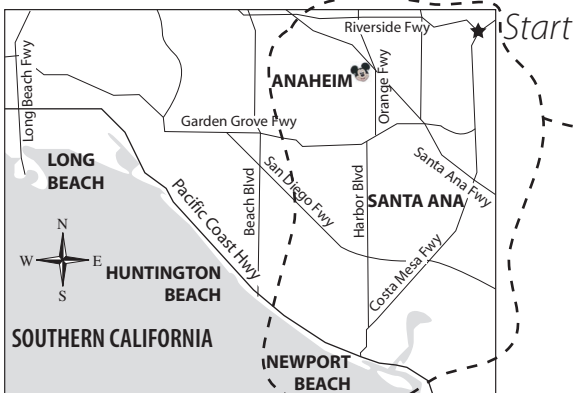
c) Of the Queensland cities shown below, which city is the most northerly?



d) In what direction is the Red Sea from Egypt?



Q. Head south from the starting point. Take the first road west and the second south. What beach is at the end of the road?

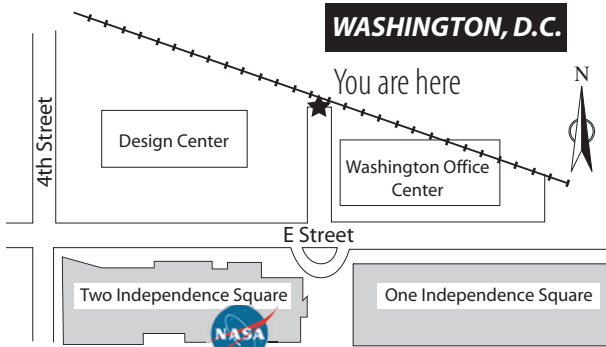


A. Newport Beach

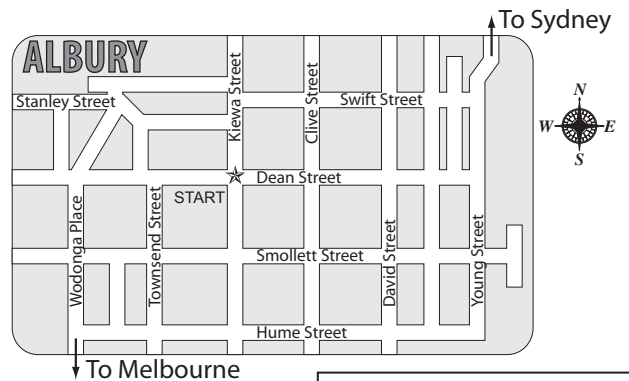


Consider one movement at a time. Mark your position as you go.

a) You head south towards E street and turn west. To which number Independence Square are you headed?

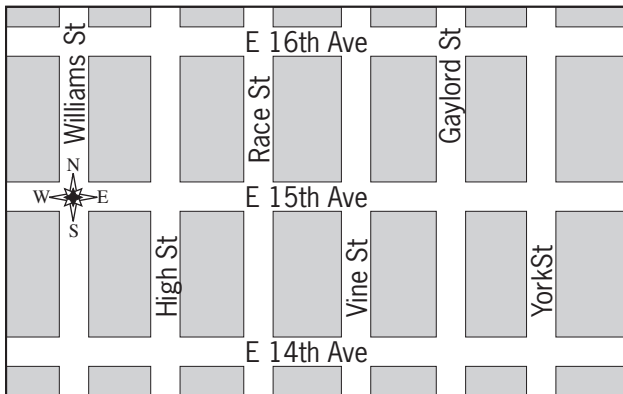


b) From the corner of Kiewa and Dean Streets you walk east for two blocks and then walk south for two blocks. What street are you in?

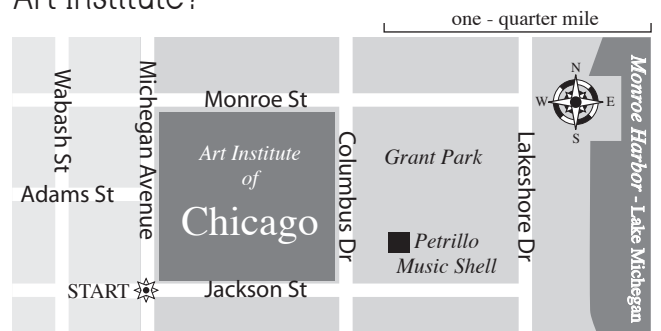


c) Start at the compass. Go east on E 15th Ave and take the second road north. Turn east again at the next corner. Which street are you in?

Denver - Colorado



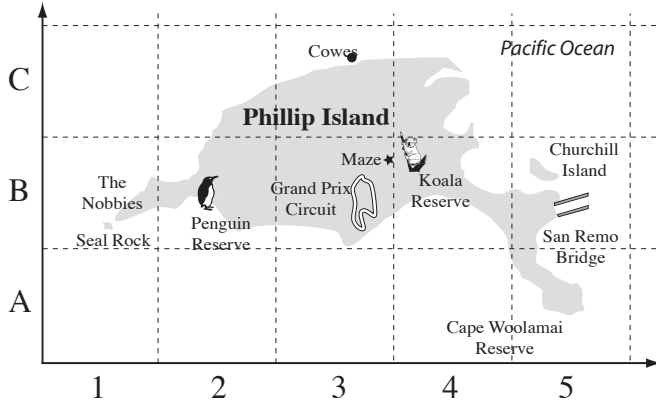
d) From the start you travel east for two blocks. You then travel half a block north. In what direction is the Art Institute?



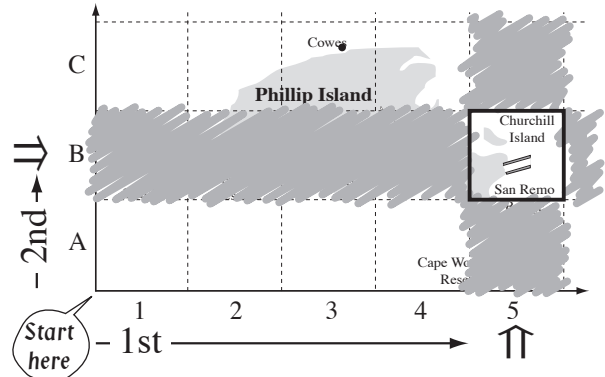
Skill 15.4 Using regions on a grid to describe location (e.g. 3A).

- Start at the bottom left corner of the grid.
First read across the horizontal axis to find the number that matches the column you need.
- Then read up the vertical axis to find the letter that matches the row you need.
The grid space that is common to both lines marks the position you are locating.

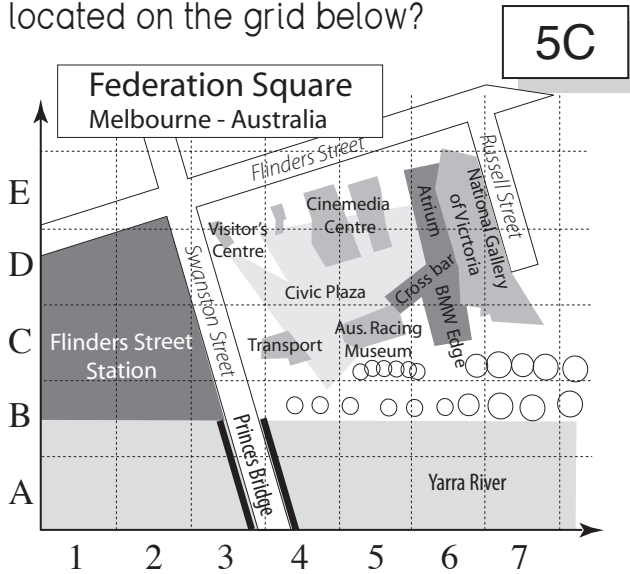
Q. Which Island is found at 5B?



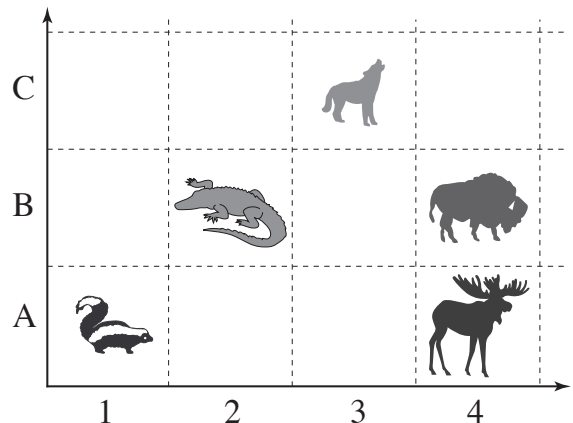
A. *Churchill Island*



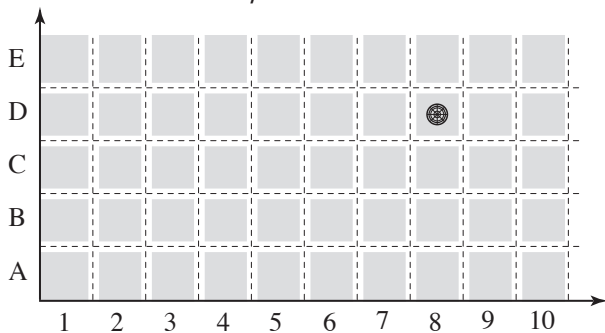
a) Where is the Australian Racing Museum located on the grid below?



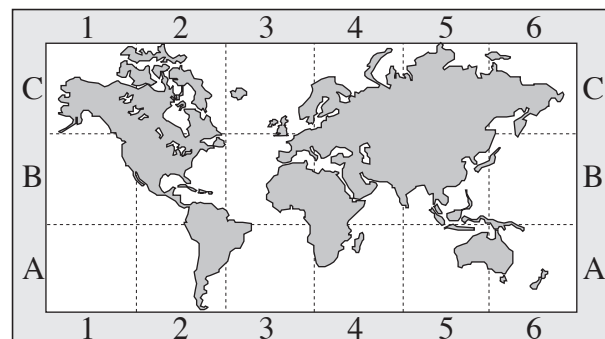
b) Which animal is located at 4B?



c) What is the location of the drain on the tiled laundry floor?



d) On this map Alaska is located at 1C. Where is New Zealand located?



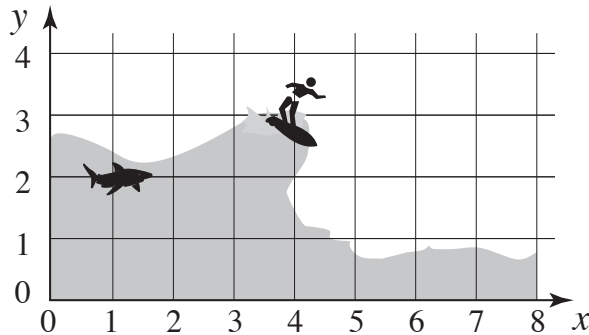
Skill 15.5 Using coordinates to describe location on a coordinate plane.

MMYellow 1 1 2 2 3 3 4 4
MMRed 1 1 2 2 3 3 4 4

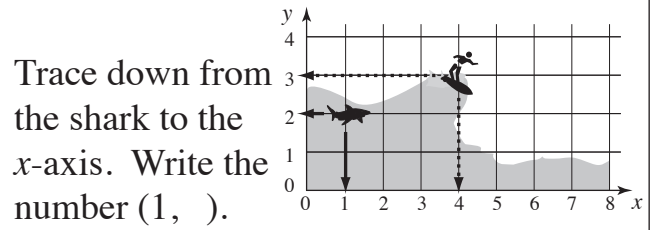
- Read the coordinate along the horizontal or x -axis first.
- Then read the coordinate on the vertical or y -axis.

Hint: x comes before y in the alphabet.

Q. What are the coordinates of the shark and the surfer on the diagram?



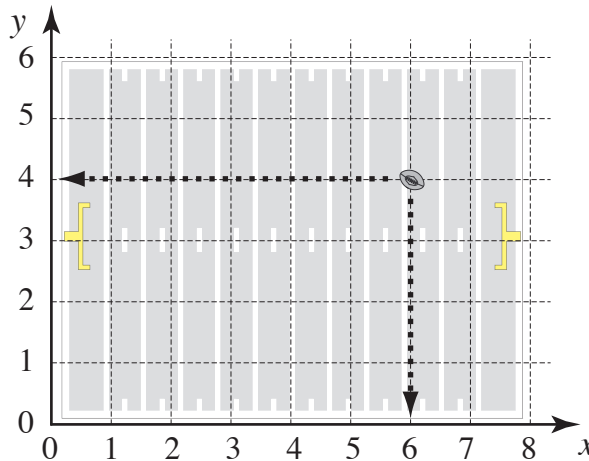
A. shark = $(1, 2)$ surfer = $(4, 3)$



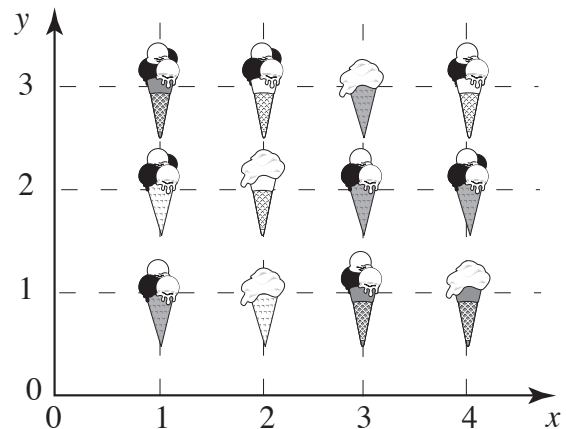
Trace down from the shark to the x -axis. Write the number (1,).

1 is the x -coordinate for the shark.
Trace across from the shark to the y -axis. Add the number 2 to the coordinate pair (1, 2). 2 is the y -coordinate for the shark. Repeat for the surfer.

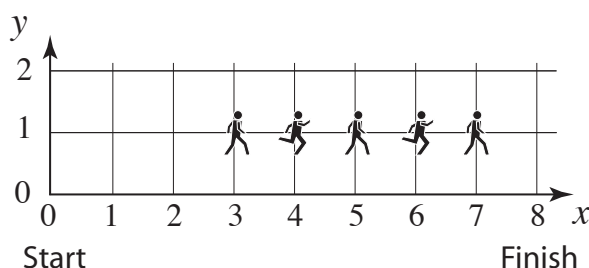
a) What are the coordinates of the ball on the field?



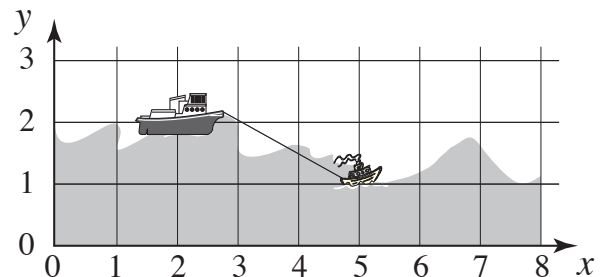
b) Find the coordinates for the only two identical ice creams. [Hint: cone type, cone color, scoop type and scoop number all vary.]



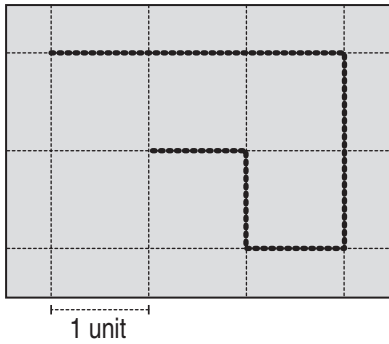
c) What are the coordinates of the person coming first?



d) What are the coordinates of the ship and the tug boat on the diagram?

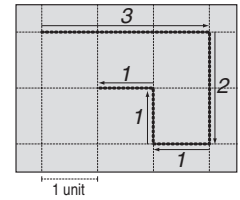


Q. In this game of snake, how long is the snake?



A. $3 + 2 + 1 + 1 + 1 = 8$ grid lengths
 8×1 unit = **8** units

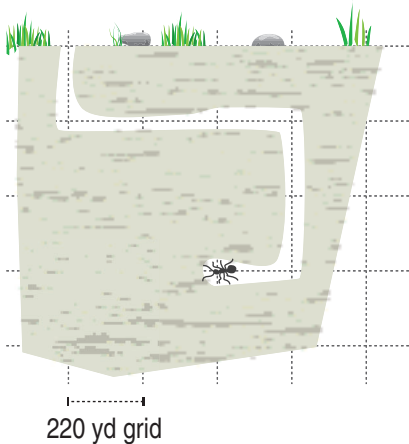
Count the number of unit lengths the snake covers in each direction.
Add the lengths.
Calculate the distance according to the grid scale. For every 1 grid length, 1 unit is covered.



a) What distance has the ant tunneled?
[Give your answer to the nearest 100 yd.]

$1 + 3 + 2 + 1 = 7$ grid lengths

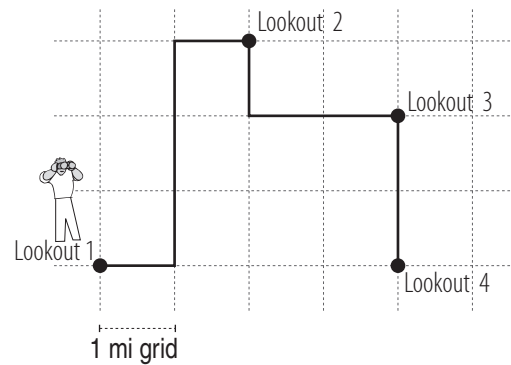
7×220 yd = **1540 yd**



b) How far does the ornithologist walk from lookout 1 to lookout 4 observing birds?

grid lengths

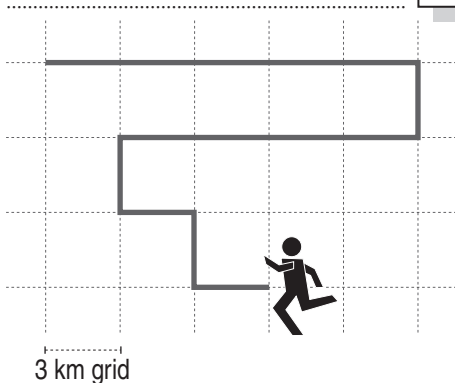
mi



c) How long is the path shown below?

grid lengths

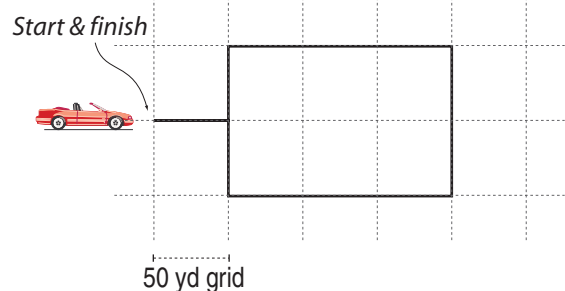
km



d) What is the distance from start to finish of the lap of honor?

grid lengths

yd



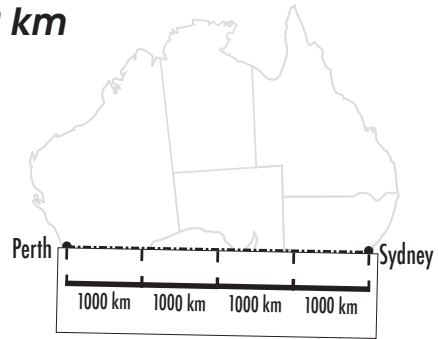
Skill 15.8 Using a linear scale to calculate distance.

- Put a piece of paper (or ruler) along the distance to be measured.
- Mark the start and end points on the paper.
- Place the paper against the scale matching the starting points.
- Slide the paper across the length of the scale marking the start and end points as you go.
- Add together the scale lengths covered.

Q. Using the scale below, what is the marked distance from Perth to Sydney?
[Round off to the nearest 500 km.]

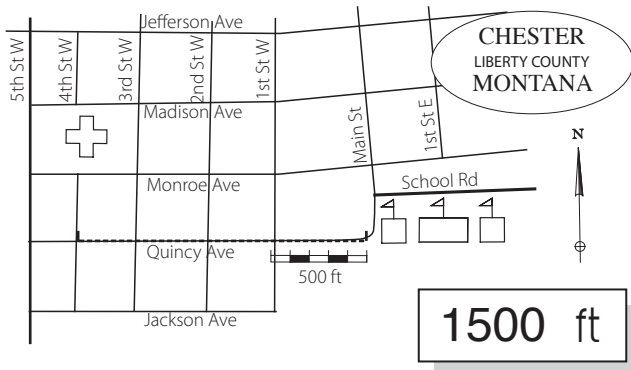


A. 4000 km

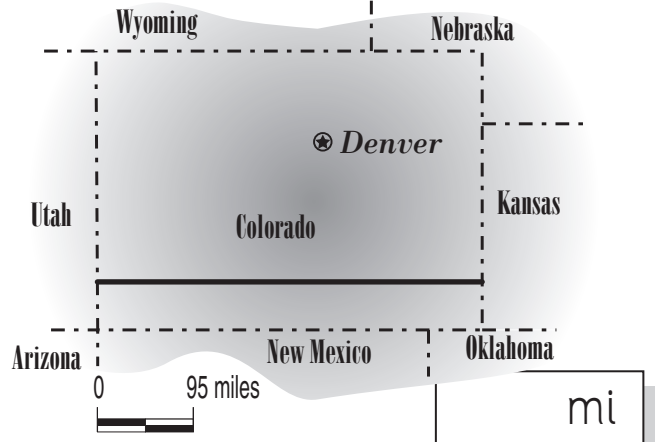


Check the scale against the length of the line. Slide the scale as necessary.
 $4 \times 1000 = 4000$

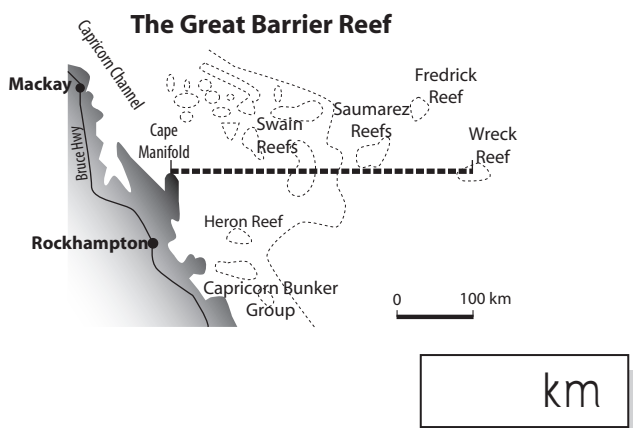
a) Use the scale to find the length of Quincy Avenue from 4th Street West to the school. [Round off to the nearest 100 ft.]



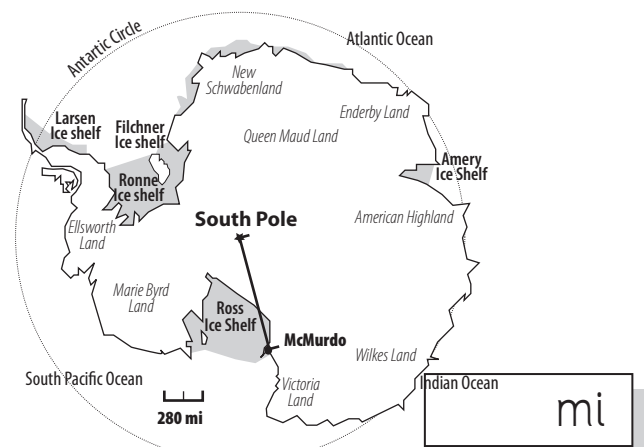
b) Use the scale to find the width of Colorado. [Round off to the nearest 10 mi.]



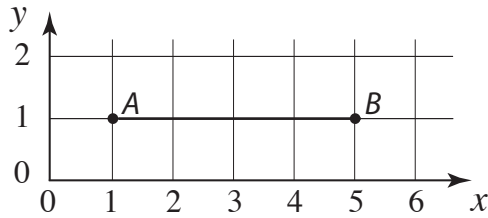
c) Using the scale below, what is the marked distance from Cape Manifold to Wreck Reef?



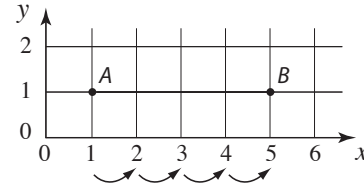
d) Using a ruler and the scale, find the distance between the South Pole and McMurdo Station.



Q. What is the length in units of segment \overline{AB} ?



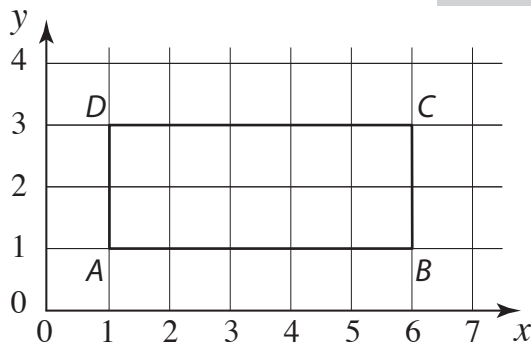
A. 4 units



There are 4 unit lengths between 1 and 5.

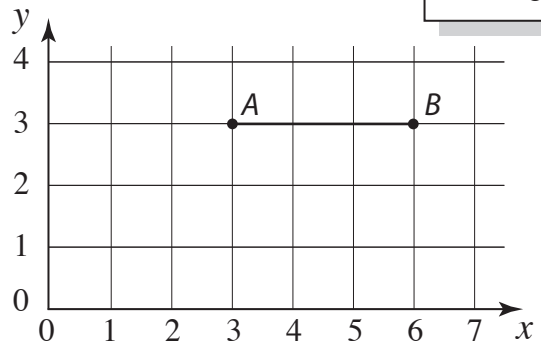
a) What is the perimeter in units of rectangle $ABCD$?

$5 + 2 + 5 + 2 =$ 14 units



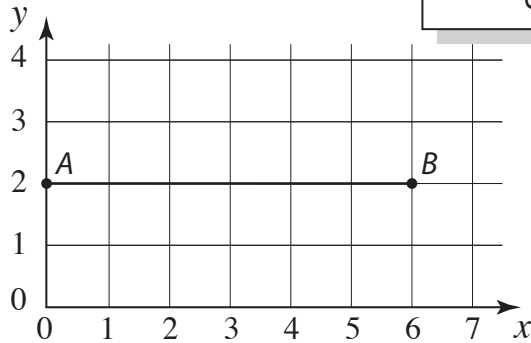
b) What is the length in units of segment \overline{AB} ?

units



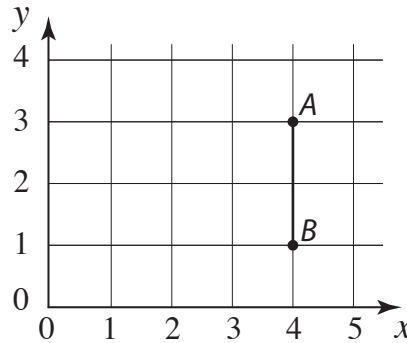
c) What is the length in units of segment \overline{AB} ?

units



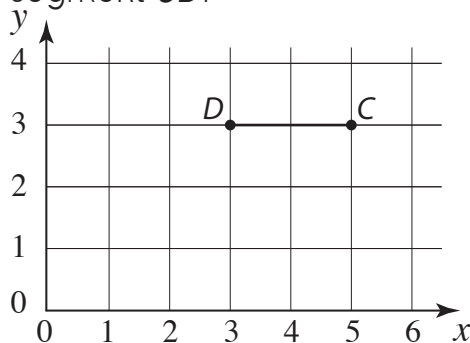
d) What is the length in units of segment \overline{AB} ?

units



e) What is the length in units of segment \overline{CD} ?

units



f) What is the perimeter in units of rectangle $ABCD$?

units

