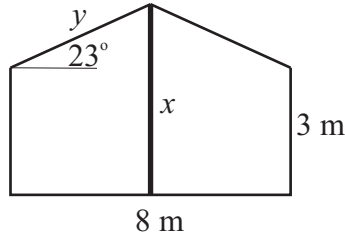*Name*: _____

Give all answers correct to one decimal place.

1. A 3.5 m long ladder is resting against a wall making an angle of $70°$ to the ground.

(a) How far is the foot of the ladder from the wall?

(b) How far up the wall is the top of the ladder?

2. The angle of the roof on a shed is $23°$ as shown below. The shed is 8 m wide and the walls are 3 m high.

y

$23°$

x

3 m

8 m

(a) Find the length, y, of one side of the roof.

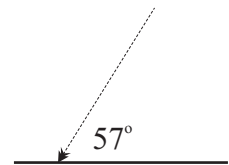(b) Find the height, x, of the centre pole in the shed.

3. A plane flies 4500 km in a direction N $38°$ W.

(a) Draw a diagram showing the direction taken by the plane.

N

(b) How far north has the plane travelled?

(c) How far west has the plane travelled?

4. On a particular day the sun's rays made an angle of $57°$ with the ground.

$57°$

(a) Gemma is 163 cm tall. How long was her shadow?

(b) The shadow of a tree was 6.7 m long. How tall was the tree?