## Lesson 1 Assignment

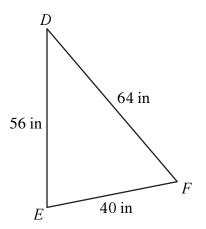
## The Sine Law

Work slowly and carefully. If you are having difficulty, go back and review the appropriate Lesson.

For full marks, show all calculations, steps, and/or explain your answers.

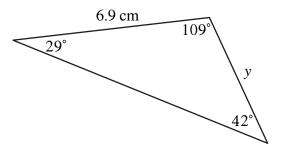
Total: 17 marks.

1. List the matching pairs of sides and opposite angles in  $\triangle DEF$ .

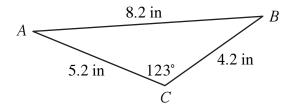


- a.  $\angle D$  is opposite \_\_\_\_\_ in.
- b.  $\angle E$  is opposite \_\_\_\_\_ in.
- c.  $\angle F$  is opposite \_\_\_\_\_ in.
- 1) 2. Evaluate  $\sin 46^\circ$ . Express the answer to four decimal places.
- (1) 3. Find  $\angle B$  if  $\sin B = 0.2419$ . Express the answer to the nearest degree.

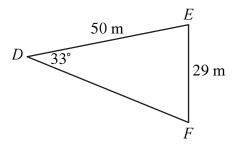
(2) 4. Calculate side y using the sine law to 1 decimal place. Show all your work.



(2) 5. Calculate  $\angle A$  in  $\triangle ABC$  to the nearest degree using the sine law. Show all work.



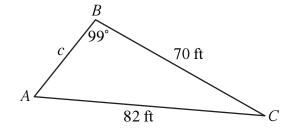
- 6. Find the following missing angles in  $\triangle DEF$ . Show all work.
- (2) a. Find  $\angle F$  in  $\triangle DEF$  to the nearest degree.



7. Find the following missing side and angles in  $\triangle ABC$ .

2

a. Find  $\angle A$  in  $\triangle ABC$  to the nearest degree.



(1)

b. Find  $\angle C$  in  $\triangle ABC$ .

(2)

c. Find side c in  $\triangle ABC$  to 1 decimal place.