

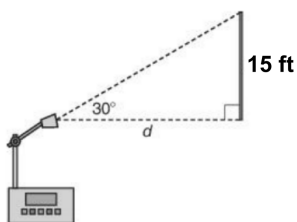
### Review 1

Which of the following is equal to  $\sin 35^\circ$ ?

- A.  $\cos 55^\circ$
- B.  $\sin 55^\circ$
- C.  $\cos 125^\circ$
- D.  $\cos 35^\circ$

### Review 3

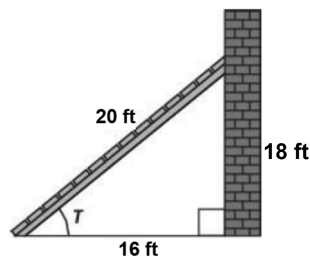
Mr. Montoya positioned an overhead projector in his classroom, as shown below.



What is the distance,  $d$ , the projector must be from the screen for a projected image to fill the screen exactly, top to bottom?

### Review 5

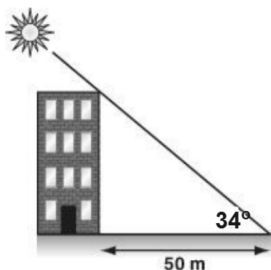
The top of a 20-foot ramp is placed 18 feet above the base of a building. The bottom of the ramp is 24 feet from the building.



What is the ratio that represents the sine of Angle T?

### Review 7

If the shadow of this building is 50 meters long when the angle of elevation to the sun is  $34^\circ$ , what is the approximate height, in meters, of the building?



### Review 2

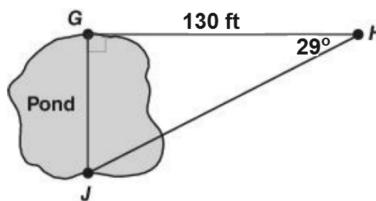
Given  $\triangle HIJ \sim \triangle KLM$  and  $\sin(\angle J) = 4/9$ , find  $\sin(\angle M)$

### Review 4

Joe walked 45 feet up a ramp on the gym floor. The ramp had a slope of  $23^\circ$  from the gym floor. To the nearest foot, how far was he from the gym floor?

### Review 6

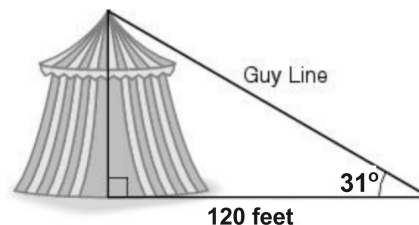
To measure the distance across a pond, a surveyor measured the distance from  $G$  to  $H$  as 130 feet.



If the measure of  $\angle GHJ$  is  $29^\circ$ , what is the approximate distance from  $G$  to  $J$  across the pond?

### Review 8

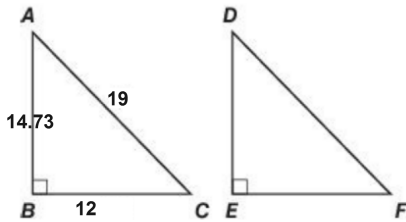
A circus tent is supported by wires called "guy lines," as shown below.



How tall is the center pole of the circus tent?

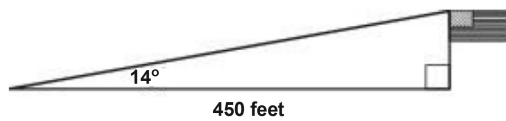
### Review 9

The diagram below shows two right triangles with the side measurements indicated. If  $\triangle ABC \sim \triangle DEF$ , find  $\tan(\angle F)$ .



### Review 11

What is the height of the flagpole?



### Review 10

A pilot sights a beacon at an  $13.5^\circ$  angle of depression. The pilot is flying at an altitude of 6000 ft.

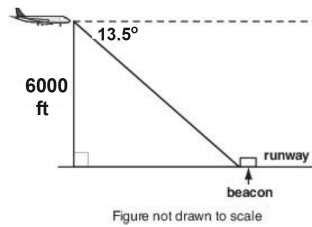
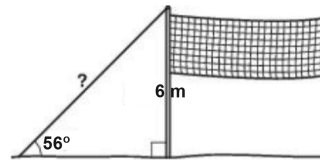


Figure not drawn to scale  
Approximately how many feet will the plane have to fly to be on the ground next to the beacon?

### Review 12

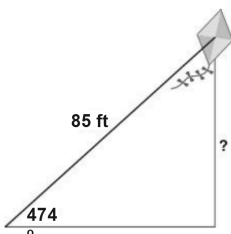
Vivian is using a rope to stabilize a pole that is 6 meters high.



If the rope forms a  $56^\circ$  angle with the ground, what is the length, to the nearest tenth of a meter, of the rope?

### Review 13

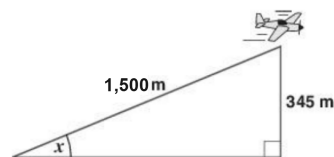
Tom is flying his kite. The kite's angle of elevation is  $47^\circ$ .



To the nearest foot, how high off the ground is the kite when it is 85ft away from Tom?

### Review 14

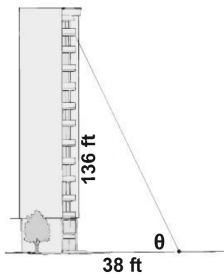
A plane takes off from a runway and climbs, keeping a constant angle with the ground as shown.



At a certain point in time, the plane will have traveled 1,500 meters and will be at an altitude of 345 meters. At this point, what is the angle, to the nearest tenth, at which the plane has risen?

### Review 15

What is the measure of  $\theta$ , to the nearest tenth of a degree?



### Review 16

What is the exact length of the diagonal of a square with a side length of 8?

