17. 34.2 ft

18. 502.4 m

19. 986 m

20. 263.3 yd

21. 0.6 km

22. 769 ft

23. 64°

Questions?

Find the value of *x*. Round to the nearest tenth of a unit.

See Prob

17.

100 ft

x

20°

18.

203 m

22°

x
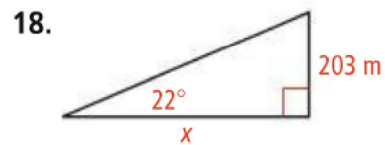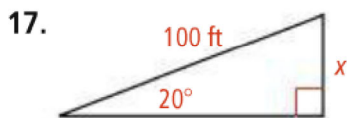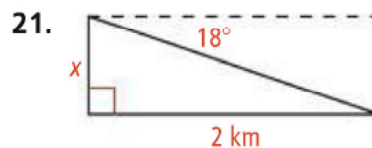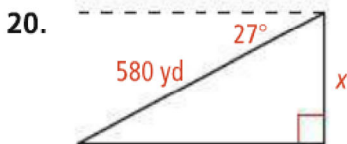
STEM **19. Meteorology** A meteorologist measures the angle of elevation of a weather balloon as 41°. A radio signal from the balloon indicates that it is 1503 m from his location. To the nearest meter, how high above the ground is the balloon?

Find the value of *x*. Round to the nearest tenth of a unit.

See Prob

20.

27°

580 yd

x

21.

18°

x

2 km

22. Indirect Measurement A tourist looks out from the crown of the Statue of Liberty, approximately 250 ft above ground. The tourist sees a ship coming into the harbor and measures the angle of depression as 18°. Find the distance from the base of the statue to the ship to the nearest foot.

ly

23. Flagpole The world's tallest unsupported flagpole is a 282-ft-tall steel pole in Surrey, British Columbia. The shortest shadow cast by the pole during the year is 137 ft long. To the nearest degree, what is the angle of elevation of the sun when casting the flagpole's shortest shadow?