Trigonometry For Partners

There are two trigonometry puzzles!

Grab a partner or family member

Have a race, see who finishes their puzzle first!

Find the measure of the side or angle labeled x, or solve the problem. Write the word next to your answer in the corresponding box above.

× 18 cm 29° **4.** A telescope is mounted on a tripod

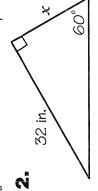
5 ft above the ground and 20 ft from a flagpole. The telescope

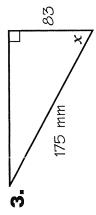
must be rotated 52° from

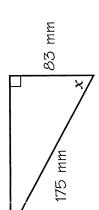
horizontal to see the top

of the flagpole. How

tall is the flagpole?







 $\vec{\Omega}$ 5. An Olympic ski jumper drops 51 m vertically while skiing down 120 a 120-meter ramp. What is the angle of elevation of the ramp?

Ε

<u>0</u> 30.6 ft A 825 ft WHO GAME 8.7 cm WHEN 810 ft WITH 8.4 cm **ON** 18.5 in. YOU BASEBALL answers 20° ညိ **22**°

> the surface of the water. The submarine 7. A submarine dives at an angle of 13° to X

> > airport runway. If the ground distance when it begins its final approach to an

6. A plane is 8000 feet above the ground

to the runway is 30 miles, what is the

angle of descent. (1 mi = 5280 ft)

30 mi

8000 ft

9. From a lighthouse deck 90 ft above the ege D water, a capsized boat is observed at How far is the boat from the base of the lighthouse?

travels at a speed of 720 feet per minute. About how deep is the sub after 5 min? an angle of depression of 7°

PLAYER

733 ft FROG

17.8 in. SMOKE

23° HT

CNICORN

680 ft

48%

る弁 8. The roof of a ski cabin has snow slide off. What a steep pitch to help angle does the roof make with the horizontal?

OVER

28.5 ft

62° CROSS

Triangles: Solving Problems Using Trigonometric Ratios (A) 54

Triangles: Solving Problems Using Trigonometric Ratios (B)