

GRADE 10 ESSENTIAL  
UNIT E - TRIGONOMETRY  
FIND MEASURE OF RIGHT ANGLES

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## DAFFYNITION DECODER

- Ozone **L**  
31° 32° 48° 45° 6° 29° 53° 6° 68° 27° 6° 6° 37° 5° 37° 5° 48° 37° 23° 8° 31°
- Mistletoe  
70° 42° 4° 4° 34° 47° 42° 4° 4° 72° 31° 32° 48° 37° 68°

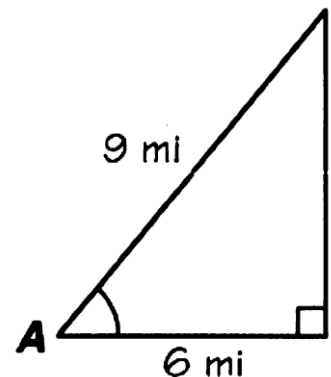
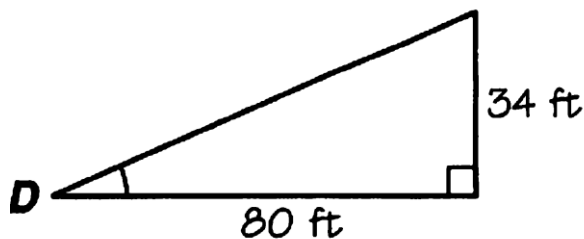
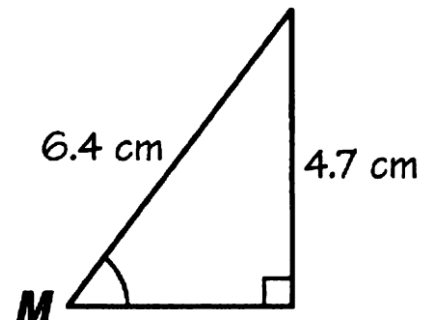
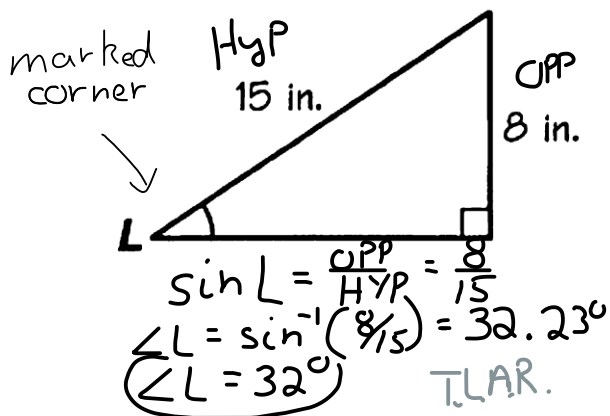
Find the measure of the angle that is marked (round to the nearest whole degree). Each time your answer appears in the code above, write the letter of the marked vertex above it.

**make sure calculator  
in degree mode!**

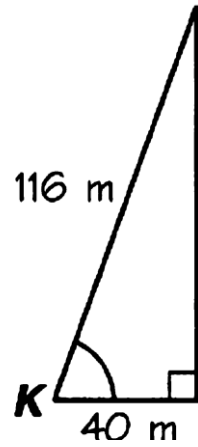
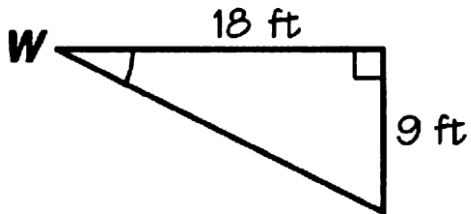
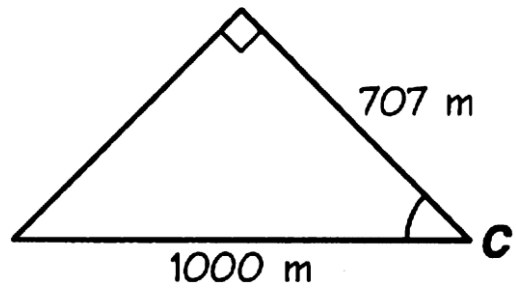
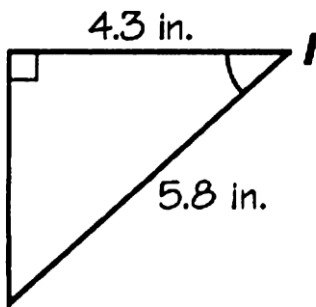
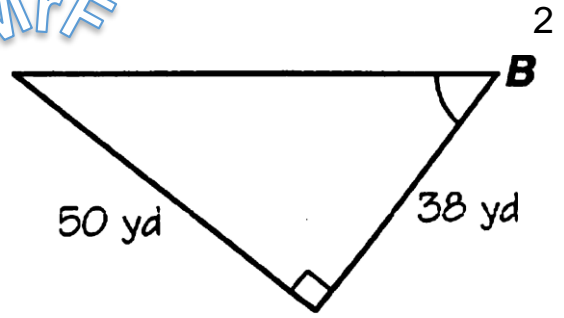
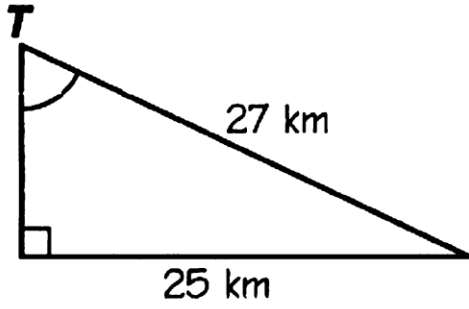
SOH CAH TOA

AS USUAL, SHOW WORK!

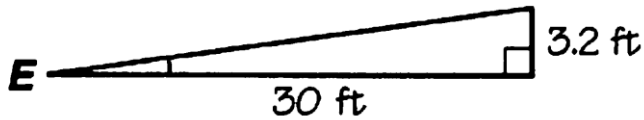
$$\begin{aligned} \sin &= \text{OPP}/\text{HYP} \\ \cos &= \text{Adj}/\text{HYP} \\ \tan &= \text{OPP}/\text{Adj} \end{aligned}$$



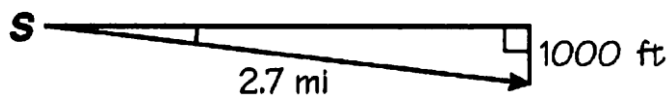
MrF



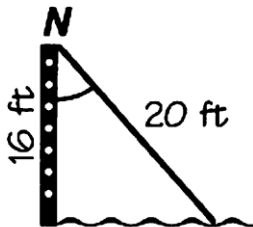
An access ramp rises 3.2 ft over a distance of 30 ft. What is the angle of the ramp with the horizontal?



A plane descends 1000 ft while flying 2.7 mi. What is the angle of descent?  
(1 mi = 5280 ft)

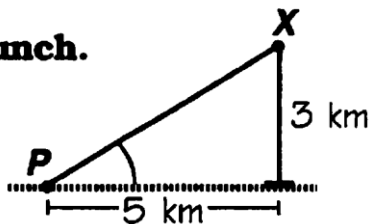


The top of a 20-ft waterslide is 16 ft above the ground. What angle does the slide make with the vertical ladder?



### Tracking a Rocket Launch.

At what angle must a camera at point  $P$  be aimed to photograph a rocket at point  $X$ ?



### Suggested Steps:

1. Label the triangle: Hypotenuse (longest side across from the right angle); label Opposite and Adjacent to the desired (or given angle);
2. Select the appropriate trigonometric ratio for the two known sides.
3. perform the *inverse* trigonometric function of the ratio (or look up the decimal version backwards in the ancient trigonometry tables)