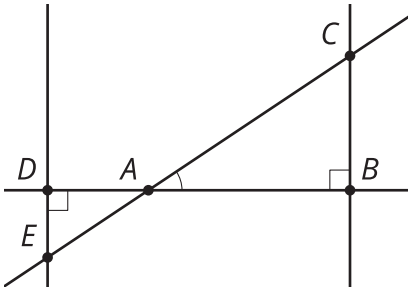
Check Your Readiness

You may use a scientific calculator and your reference chart. Round side lengths to the nearest tenth.

1 Which angle is complementary to angle BAC?



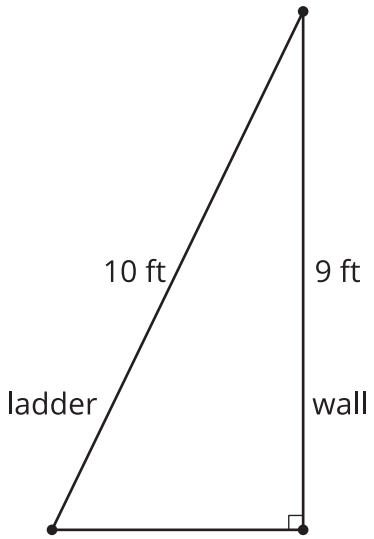
A. angle ACB

B. angle CAD

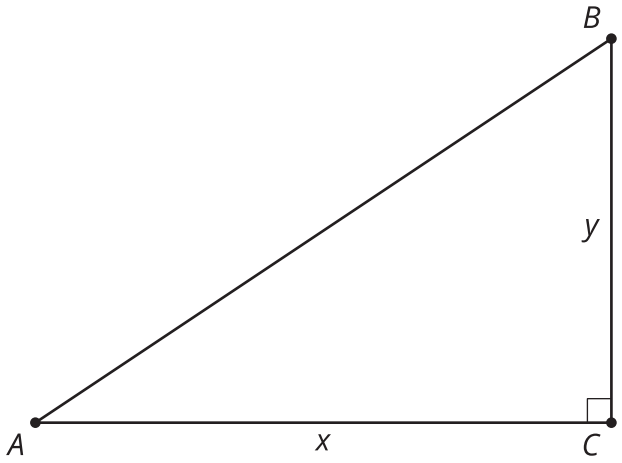
C. angle CBA

D. angle DAE

2 A 10-foot tall ladder is placed against a wall so that the top of the ladder is 9 feet above the ground. How far is the base of the ladder from the base of the wall along the ground? Explain or show your reasoning.

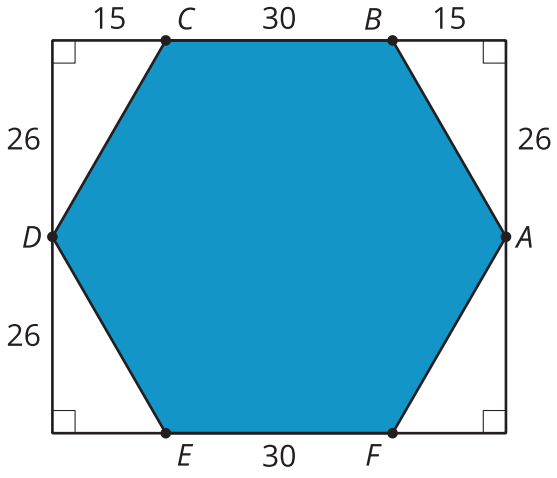


3 Clare and Diego each use a ruler to try to determine the slope of line AB in this right triangle. Clare says the slope is a ratio of y to x of $2.8 : 4.1$. Diego says the slope is 0.67.



The exact slope is $\frac{2}{3}$. Was either student close to the exact value of the slope? Explain or show your reasoning.

4 What is the area of regular hexagon $ABCDEF$? Explain or show your reasoning.



5 Select **all** quantities that equal π.

A. the circumference of a circle of radius 1

B. the circumference of a circle of diameter 1

C. the diameter of a circle of radius 1

D. the diameter of a circle of circumference 1

E. the area of a circle of radius 1

F. the area of a circle of diameter 1

G. the constant of proportionality relating the diameter of a circle to its radius

H. the constant of proportionality relating the diameter of a circle to its circumference

6 Solve each equation.

$\frac{x}{7} = 0.4$

$\frac{7}{y} = 0.4$