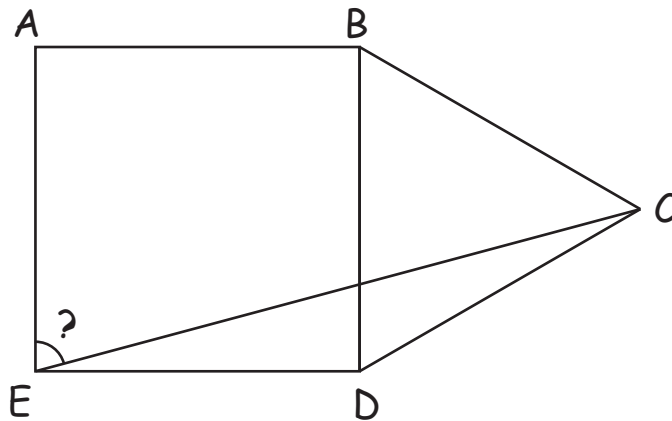# The Square and Equilateral Triangle
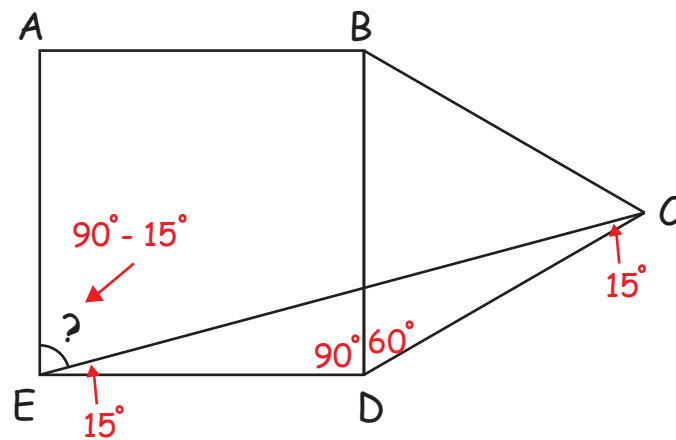
Name: _____   Class: _____

Use the following figure to answer the questions and find the unknown angle.

(1) Shape ABDE has 4 equal sides. What kind of shape is ABDE?

(2) What are the values of the angles in ABDE?

(3) Triangle BCD has 3 equal sides. What kind of triangle is this?

(4) What can we say about angles BDC and EDC?

(5) Line segments ED and DC are equal. What kind of trangle is ECD?

(6) Knowing this, what are the values of angles ECD adnd CED?

(6) What is the value of angle AEC?

Answers

(1) Shape ABDE has 4 equal sides. What kind of shape is ABDE?

Square

(2) What are the values of the angles in ABDE?

90 degrees

(3) Triangle BCD has 3 equal sides. What kind of triangle is this?

Equilateral triangle

(4) What can we say about angles BDC and EDC?

BDC = 60 and EDC = 90 + 60 = 150 degrees

(5) Line segments ED and DC are equal. What kind of trangle is ECD?

Isosceles

(6) Knowing this, what are the values of angles ECD adnd CED?

Equal, 180 - 150 / 2 = 15 degrees

(6) What is the value of angle AEC?

90 - 15 = 75 degrees