

Sec. 4.3 - Congruent Triangles

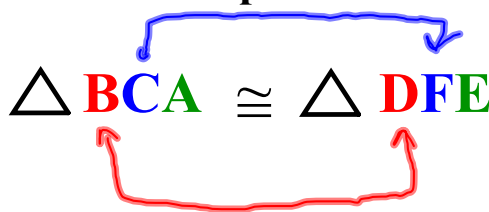
Congruent Polygons

- Two polygons are \cong if & only if their corresponding parts are \cong

Corresponding parts: matching parts of the polygons

- When naming \cong polygons, corresponding parts must be in the same spot or order

CAB
FED

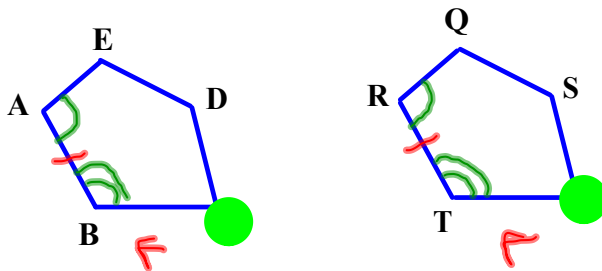


$$\angle B = \angle D$$

$$\angle C = \angle F$$

$$\overline{BC} = \overline{DF}$$

Identify all the corresponding parts of the congruent polygon:



Angles

$$\angle A = \angle R$$

$$\angle B = \angle T$$

$$\angle C = \angle P$$

$$\angle D = \angle S$$

$$\angle E = \angle Q$$

Sides

$$AB = RT$$

$$BC = TP$$

$$CD = PS$$

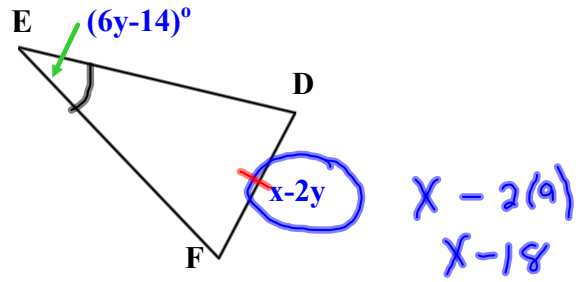
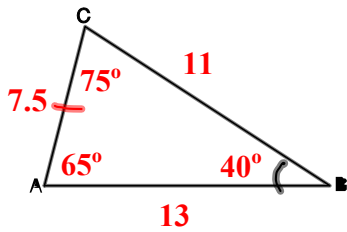
$$DE = SQ$$

$$AE = RQ$$

Write a congruence statement:

$$CBAED \cong PTRQS$$

In the diagram, triangle $ABC \cong$ triangle DEF . Find the values of x & y .



$$6y - 14 = 40$$

$$6y = \frac{54}{6}$$

$$y = 9$$

$$x - 2(9) = 7.5$$

$$x - 18 = 7.5$$

$$x = 25.5$$

Homework:

p.257, # 10, 13-16 all, 18,
44-50 all

Honors: 28, 34, 39