Name\_

## Review...all the good stuff!

Are the following triangles congruent? If they are, state the reasoning.



Rewrite each conditional statement below as an arrow diagram and state whether or not it is true. Then write the converse of the statement and state whether or not the converse is true.

- 1. If an angle is a straight angle, then the angle measures 180°.
- 2. If a triangle is a right triangle, then the sum of the squares of the lengths of the legs is equal to the square of the length of the hypotenuse.

Use your triangle congruence conjectures to decide whether or not each pair of triangles must be congruent. Base your decision on the markings, not on appearances. Justify your answer.



34. Given:  $\overline{AB} \parallel \overline{CD}$ ,  $\angle B \cong \angle D$ ,  $\overline{AB} \cong \overline{CD}$ Prove:  $\triangle ABF \cong \triangle CDE$ 



35. Given:  $\overline{PG} \cong \overline{SG}$ ,  $\overline{TP} \cong \overline{TS}$ Prove:  $\Delta TPG \cong \Delta TSG$ 



- The spinner at right is only partially completed. Complete the spinner based on these clues.
  - a. There are three other single digit numbers on the spinner. All four numbers on the spinner are equally likely results for one spin. No digit is repeated.



b. If the spinner is spun twice and the two outcomes are added, the largest possible sum is 16, while the smallest possible sum is 2. The most common sum is 9.

Assume that 25% of the student body at your school is male and that 40% of the students walk to school. If a student from this school is selected at random, find the following probabilities.

- a. P(student is female)
- b. P(student is male and does not walk to school)
- c. P(student walks to school or does not walk to school)
- d. Identify the sample space in parts (b) and (c) above as a "union" or a "intersection."