Homework 6-83 to 6-88

6-83

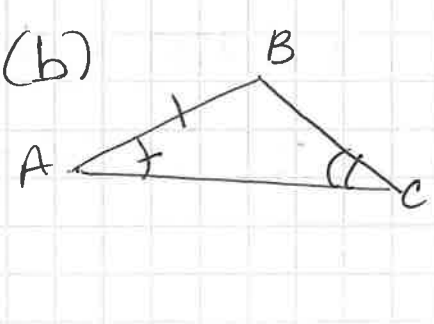
a) Congruent
HL ≅

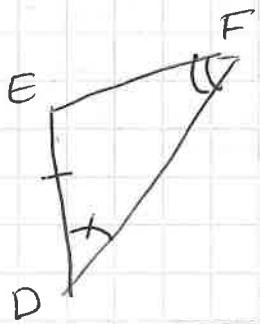
b) Congruent
AAS ≅

c) Not enough information

d) Congruent
SAS ≅

(b)





$m\angle A = m\angle D$ given

$\overline{AB} = \overline{DE}$ given

$m\angle C = m\angle F$ given

$\triangle ABC \cong \triangle DEF$
AAS ≅

6-84

a) $4x - 2 + x = 90$
$5x = 92$
$x = 18\frac{2}{5} = 18.4$

Complementary angles

b) $2m+3+m+9+m-1 = 180$
$4m + 11 = 180$
$4m = 169$
$m = 42.25$

Triangle Angle Sum Thm.

c) $7k-6 = 3k+18$

$4k = 24$

$k = 6$

Vertical Angles

d) similar

$\frac{8}{13} = \frac{x}{16}$

$13x = 128$

$x \approx 9.8$

Corresponding sides are proportional

6-85

$3x+24 = 5x+2$

$22 = 2x$

$11 = x$

$m\angle ABC = 114°$

$3(11)+24 = 57(2)$

6-86

a) If the triangle is isosceles, then the base angles are congruent.

Always true

b) If the sum of the angles is 180°, then the figure is a triangle.

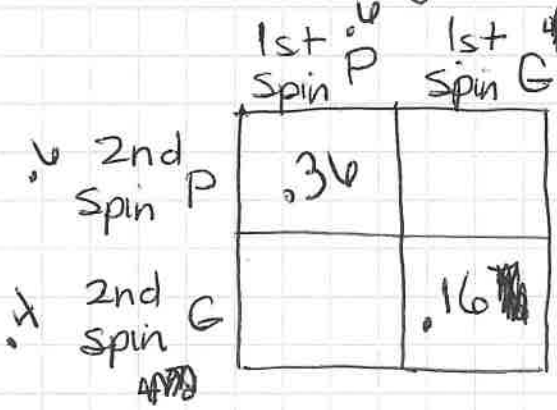
Always true

c) If my mom is happy, then I cleaned my room.

Not always true

6-87

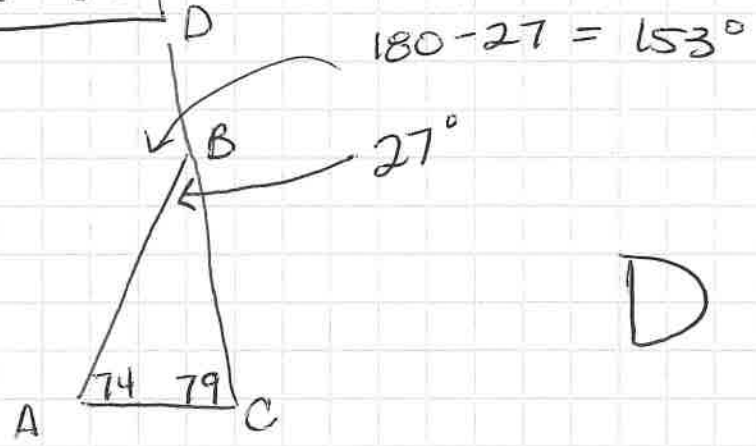
Landing on green twice is 16%



add up to 1

36%

6-88



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