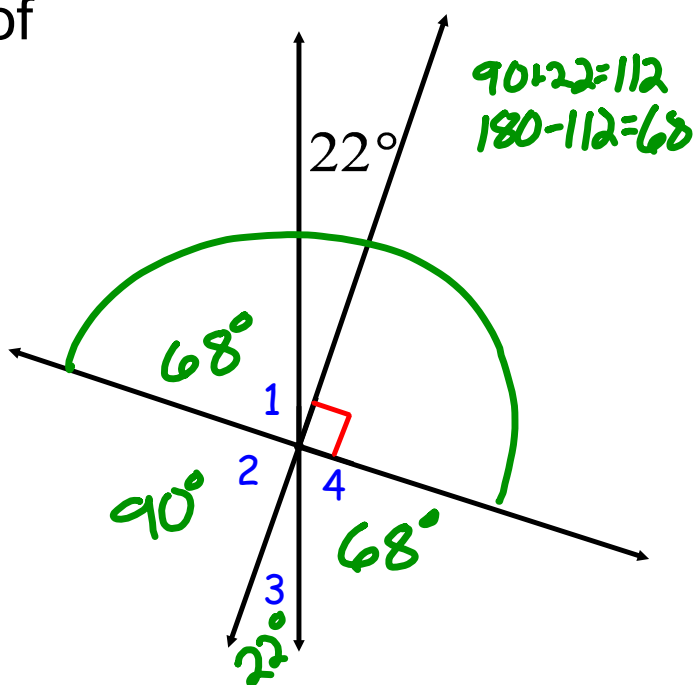


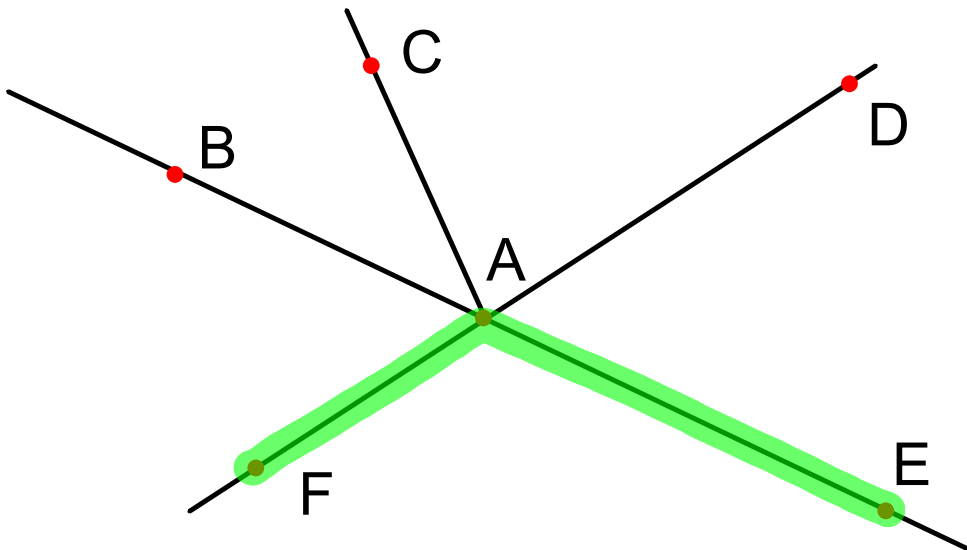
~~HW Worksheet~~

Warm up:

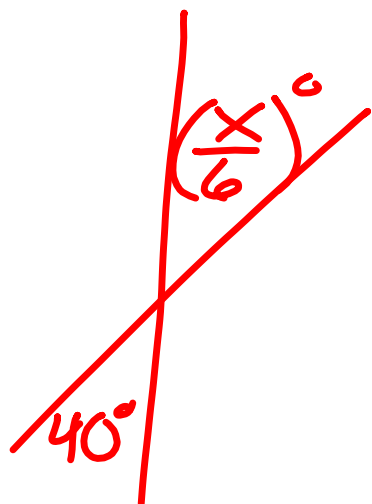
1) Find the measures of the missing angles.



$\angle EAF$ Naming Angles



HW Solutions



$$6\left(\frac{X}{6}\right) = (40)6$$
$$X = 240$$

Assessment Solutions

①

28
30
26

$$\frac{28 + 30 + 26}{3} = 28$$

~~$$\frac{28}{80} = \frac{x}{2500}$$~~

$$\frac{80x}{80} = \frac{70000}{80}$$

$$x = 875$$

875 people

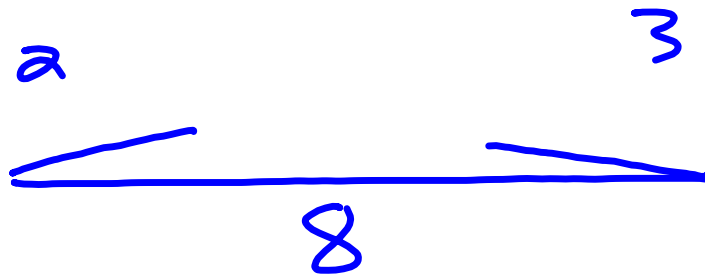
(14) $\begin{matrix} 46 & 56 & 66 \\ 55 & 65 & \\ 64 & & \end{matrix}$ $\frac{6}{36} = \left(\frac{1}{6}\right)$

(9) $\frac{1}{6} \cdot \frac{\cancel{3}^1}{\cancel{6}^2} = \left(\frac{1}{12}\right)$ (10) $\frac{4}{30} = \left(\frac{2}{15}\right)$

(8) $\frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$
 $\frac{3}{6} \cdot \frac{3}{6} = \frac{9}{36} = \frac{1}{4}$

$$\textcircled{12} \frac{12}{13} \cdot \frac{11}{17} = \frac{11}{221}$$

- 1) Cut three pieces of yarn: 2in, 3in, and 8in.
- 2) Try to make a triangle using the pieces of yarn.
- 3) What do you notice?

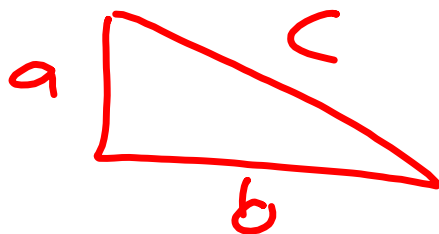


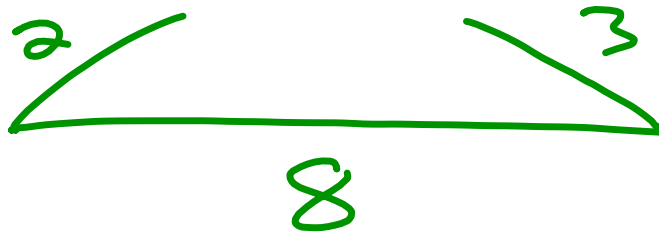
Triangle Inequality Theorem

shorter sides longest side

↙ ↘ ↓

$$a + b > c$$





 <http://www.mathopenref.com/triangleinequality.html>

It is possible to have a triangle with the following side lengths?

1) 5m, 17m, 20m

yes

4) 16yd, 8yd, 9yd

yes

2) 6mi, 4mi, 9mi

yes

5) 8in, 3in, 2in

no

3) 10ft, 10ft, 22ft

no

6) 12km, 4km, 9km

yes

1) Cut off three pieces of yarn that can form a scalene triangle.

2) Arrange them so that they form a triangle.

3) Try to form another triangle with the same sides. Is it congruent to the first triangle? *yes*

4) How many different triangles can you make?

1

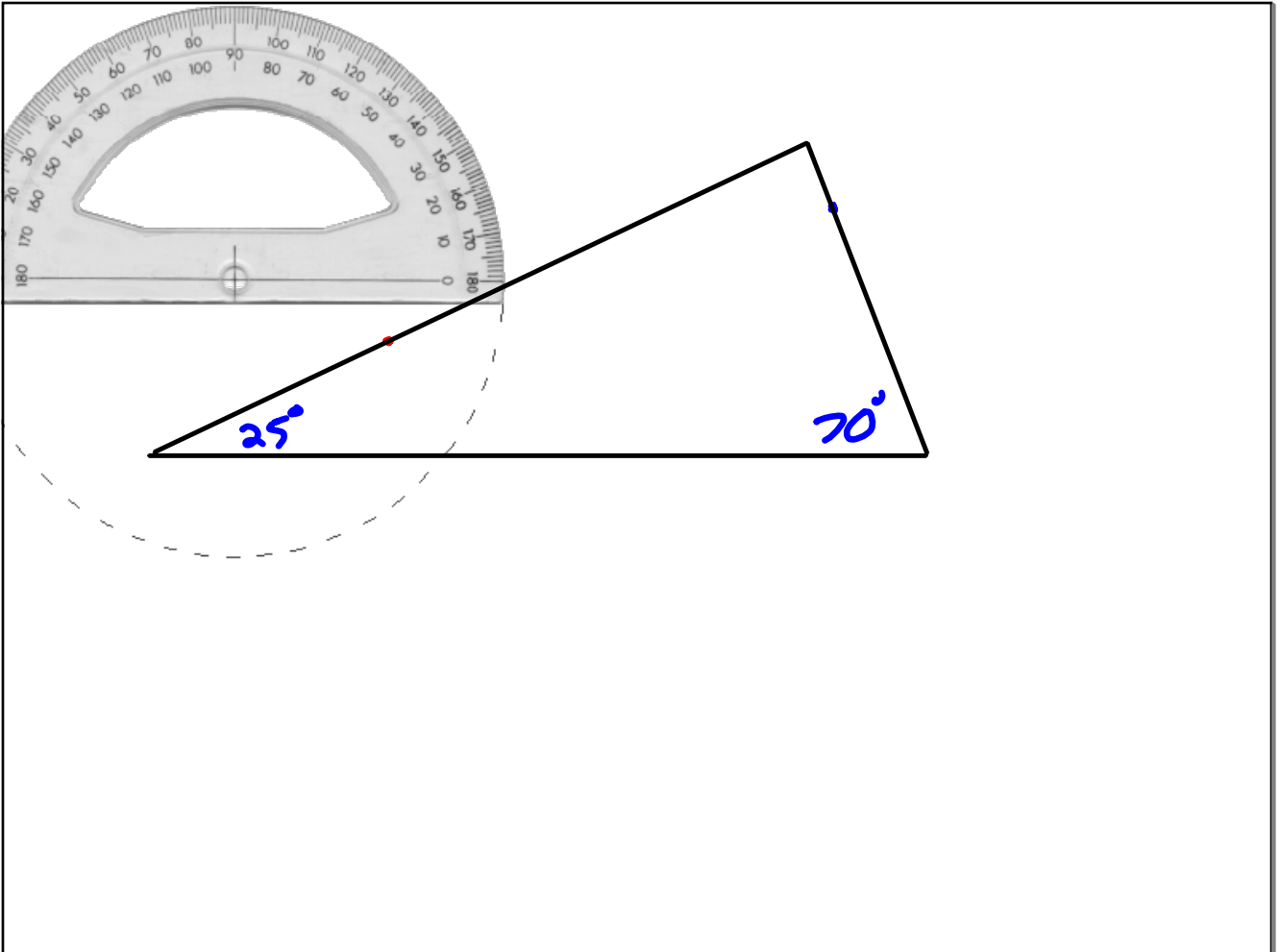


Draw a triangle with angles measuring 25 degrees, 70 degrees, and 85 degrees.

Try to draw another triangle with the same angle measures.

How many different triangles can you make?

infinitely many



angle sum of a triangle
is 180°

How many different triangles could you make with the given information?

1) side length 4cm, 5cm, 8cm

1

2) side lengths 10in, 3in, 5in

0

3) side lengths 17m, 14m, 34m

0

4) angle measures 40° , 60° , 80°

infinitely many

5) angle measures 13° , 18° , 149°

infinitely many

6) angle measures 22° , 96° , 59°

0

177°

