

Friday, September 26

Objective:

SWBAT

Write geometric proofs using
flowcharts

The formula to convert temperature in degrees
Fahrenheit ($^{\circ}\text{F}$) to Celsius ($^{\circ}\text{C}$) is $C = \frac{5}{9}(F-32)$

① Solve the formula for F. Write a reason for each
step

②-⑤ Show the conversion to Fahrenheit for
each temperature: 0°C , 20°C , 32°C , 41°C

HW: finish proof worksheets

2.6 Geometric Proofs

Solve for F!

$$\frac{9}{5} C = \frac{5}{9} (F - 32) \frac{9}{5}$$

Given

Get rid of fraction by
multiplying by the reciprocal

$$\frac{9}{5} C = F - 32$$

Multiplication Property

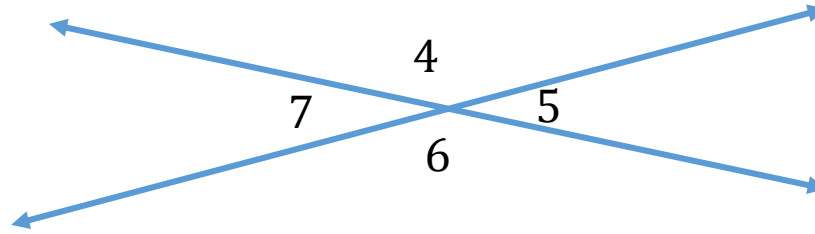
Add 32 to both sides

$$\frac{9}{5} C + 32 = F$$

Addition Property

②-⑤ Show the conversion to Fahrenheit for
each temperature: 0°C, 20°C, 32°C, 41°C

2.6 Geometric Proofs



$\angle 4$ & $\angle 5$ are
supplementary

Given



$$m\angle 4 + m\angle 5 = 180^\circ$$

Definition of supp. angles

$\angle 5$ & $\angle 6$ are
supplementary

Given



$$m\angle 5 + m\angle 6 = 180^\circ$$

Definition of supp. angles

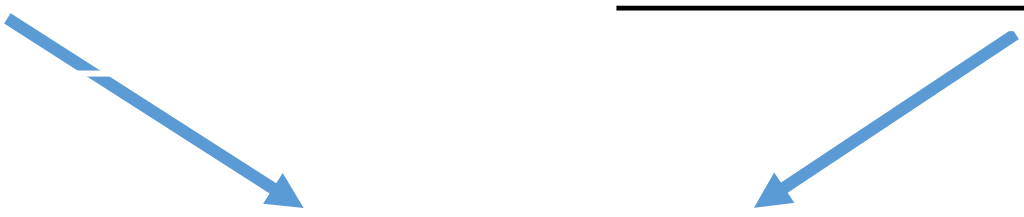
2.6 Geometric Proofs

$$m\angle 4 + m\angle 5 = 180^\circ$$

Definition of supp. angles

$$m\angle 5 + m\angle 6 = 180^\circ$$

Definition of supp. angles


$$m\angle 4 + m\angle 5 = m\angle 5 + m\angle 6$$

Substitution Prop.

2.6 Geometric Proofs

$$m\angle 4 + m\angle 5 = m\angle 5 + m\angle 6$$

Substitution Prop.



$$m\angle 4 = m\angle 6$$

Subtraction Property



$$\angle 4 \cong \angle 6$$

Definition of congruent angles

2.6 Geometric Proofs

$\angle 1$ is a right angle

Given



$$m\angle 1 = 90^\circ$$

Definition of right angles

$\angle 2$ is a right angle

Given



$$m\angle 1 = 90^\circ$$

Definition of right angles

2.6 Geometric Proofs

$$m\angle 1 = 90^\circ$$

Definition of right angles

$$m\angle 2 = 90^\circ$$

Definition of right angles

$$m\angle 1 = m\angle 2$$

Substitution Prop.

$$\angle 1 \cong \angle 2$$

Definition of congruent angles

2.6 Geometric Proofs

$$m\angle 4 + m\angle 5 = m\angle 5 + m\angle 6$$

Substitution Prop.



$$m\angle 4 = m\angle 6$$

Subtraction Property



$$\angle 1 \cong \angle 2$$

Definition of congruent angles