

7.4

- ①  $60^\circ$       ⑥ acute      ⑪ straight      ⑯  $90^\circ$ , right  
 ②  $70^\circ$       ⑦ acute      ⑫  $\angle 1$  or  $\angle WYX$       ⑰  $125^\circ$ , obtuse  
 ③  $120^\circ$       ⑧ obtuse      ⑬  $\angle 2$  or  $\angle ZYW$       ⑱  $172^\circ$ , obtuse  
 ④  $40^\circ$       ⑨ acute      ⑭  $33^\circ$ , acute      ⑲  $137^\circ$   
 ⑤  $180^\circ$       ⑩ right      ⑮  $97^\circ$ , obtuse      ⑳  $\angle IXJ$  or  $\angle JXI$

⑳  $81^\circ$

㉑  $\angle FXI$  or  $\angle IXF$   
 or  $\angle GXJ$  or  $\angle JXG$

㉒  $\angle GXF$  or  $\angle FXG$

㉓  $m\angle RZS + m\angle TZS = m\angle RZT$

$$3s + 8s = 110^\circ$$

$$\frac{11s}{11} = \frac{110}{11}$$

$$x = 10$$

$$m\angle RZS = 3s = 3(10) = 30^\circ$$

$$m\angle TZS = 8s = 8(10) = 80^\circ$$

㉔  $m\angle OZQ = m\angle OZP + m\angle PZQ$

$$125 = 4r + 2 + 5r - 12$$

$$125 = 9r - 10$$

$$\begin{array}{r} +10 \qquad \qquad \qquad +10 \\ \hline \end{array}$$

$$\frac{135}{9} = \frac{9r}{9}$$

$$15 = r$$

$$m\angle OZP = 4r + 2$$

$$= 4(15) + 2$$

$$= 62^\circ$$

$$m\angle PZQ = 5r - 12$$

$$= 5(15) - 12$$

$$= 63^\circ$$

(26) No. If his angle is congruent to Elsa's, then it measures  $56^\circ$ , which is acute because it is less than  $90^\circ$ .

(27) Cherry - six slices  $360^\circ \div 6 = 60^\circ$  each

Apple = eight slices  $360^\circ \div 8 = 45^\circ$  each

$$60 - 45 = 15^\circ$$

(28) The two angles are congruent which means they each have the same measure.

A straight angle is  $180^\circ$ , so  $x + x = 180$

$$2x = 180$$

$$x = 90$$

Each angle is  $90^\circ$ , so they are right angles.

(29) 12 slices  $360^\circ \div 12 = 30^\circ$