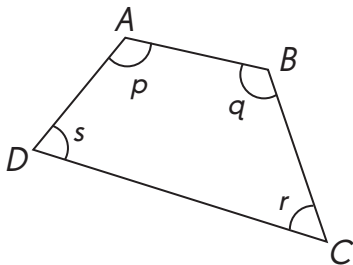# Cumulative Review

for Chapters 9 to 11

Concepts and Skills

Name the given angles in another way. *(Lesson 9.1)*

1. ∠p : _____

2. ∠r : _____

3. ∠ABC : _____

4. ∠ADC : _____

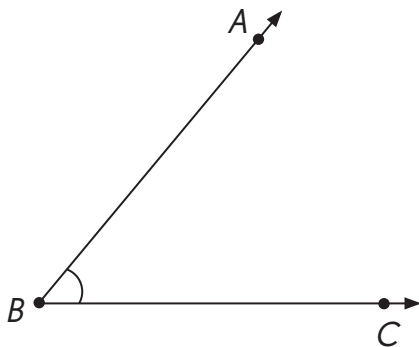**Estimate and decide which of the above angle measures are** *(Lesson 9.1)*

5. acute angles.
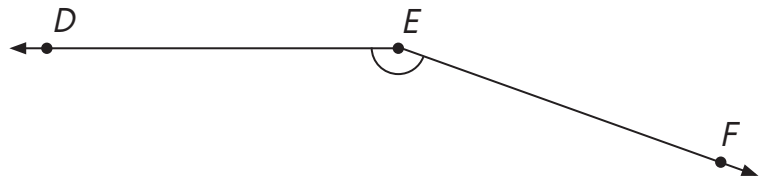
_____

_____

6. obtuse angles.

_____

_____

Estimate each angle measure. Then measure each angle to check your answer. *(Lesson 9.1)*
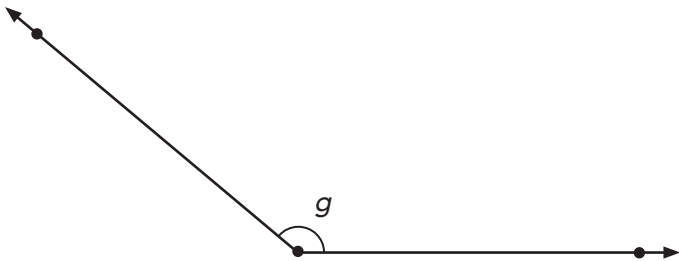
7.
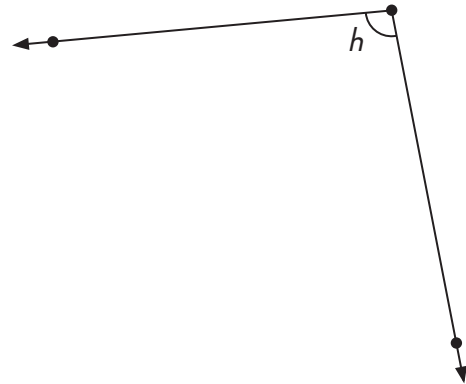

Measure of ∠ABC = _____

8.

Measure of ∠DEF = _____

Estimate each angle measure. Then measure each angle to check your answer. *(Lesson 9.1)*

9.

Measure of ∠g _____

10.

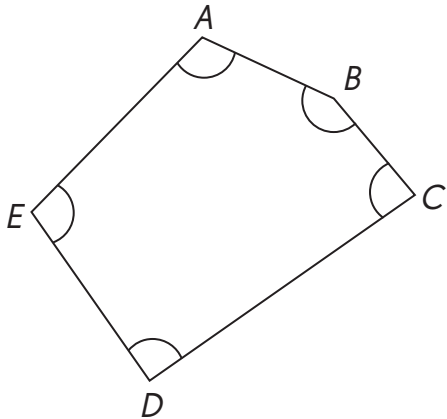Measure of ∠h _____

Name and measure each marked angle in the figure. *(Lesson 9.2)*

11.

```
       A
        ⌢
      /   \
     /      \ B
    /        ⌢
 E ⌢          \
   \           ⌢ C
    \         /
     \       /
      ⌢     /
       \   /
        D
```

┌─ *Example* ─────────────────────┐
│   Measure of ∠BAE = 110°   │
└──────────────────────────────────┘

Measure of _____

Measure of _____
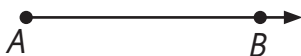
Measure of _____

Measure of _____

Using point _A_ as the vertex, draw ∠_CAB_ as described. *(Lesson 9.2)*

12.   75°, with $\overrightarrow{AC}$ above $\overrightarrow{AB}$

```
A •——————————•—→
              B
```

13.   42°, with $\overrightarrow{AC}$ below $\overrightarrow{AB}$

```
  B              A
←—•——————————————•
```

Fill in the blanks. *(Lesson 9.3)*
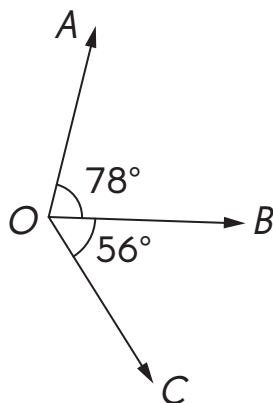
14. $\frac{3}{4}$ of a full turn is _____.

15. Two right angles is ☐ of a full turn.

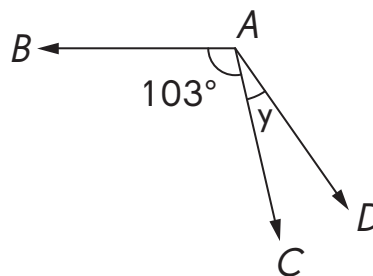**16.** 360° is _____ full turn or _____ right angles.

17. What fraction of a full turn is one right angle? ☐

Find the measure of the unknown angles. *(Lesson 9.3)*

18. $m \angle AOC$ is _____.

78°
56°

19. Measure of $\angle BAD$ is 125°.
$m \angle y =$ _____

103°

Draw. $\overleftrightarrow{AB}$ **is a vertical line.** *(Lessons 10.1 to 10.3)*

20. Draw a horizontal line through point B and label it $\overleftrightarrow{BC}$.

21. Draw a vertical line through point C and label it $\overleftrightarrow{CD}$.

22. What can you say about the relationship between $\overleftrightarrow{AB}$ and $\overleftrightarrow{BC}$?
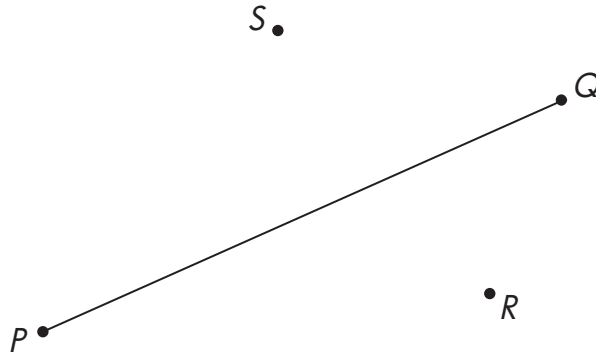
_____

23. What can you say about the relationship between $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$?

_____

Use a drawing triangle and a straightedge. *(Lessons 10.1 and 10.2)*

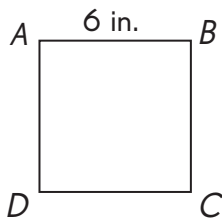**24.** Draw a line segment parallel to $\overline{PQ}$ through point R.

S •

•Q

•R

P •

25. Draw a line segment perpendicular to $\overline{PQ}$ through point S.
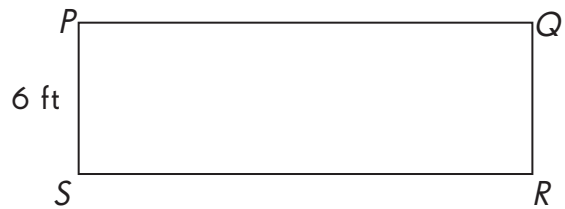
Fill in the blanks. *(Lesson 11.1)*

26. *ABCD* is a square.

A ⎢ 6 in. ⎢ B

D ⎢ ⎢ C

$BC =$ _____ in.

$CD =$ _____ in.

27. *PQRS* is a rectangle.

P ⎢ Q

6 ft

S ⎢ R

$\overline{SR}$ is 3 times as long as $\overline{PS}$.
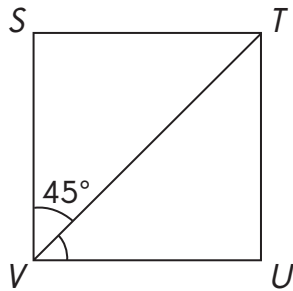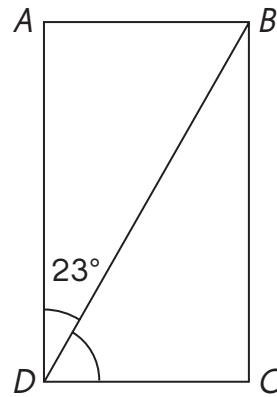
$SR =$ _____ ft

$PQ =$ _____ ft

Find the measures of the unknown angles in the squares and rectangles. *(Lesson 11.2)*
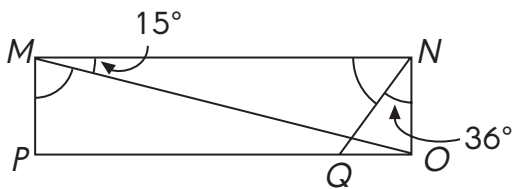
28.   *STUV* is a square.

Measure of ∠*TVU* = _____

29.   *ABCD* is a rectangle.

Measure of ∠*BDC* = _____

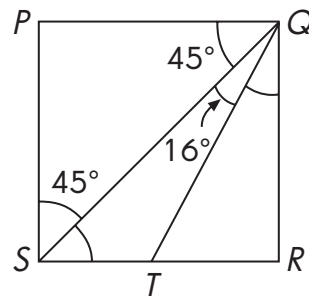**30.**   *MNOP* is a rectangle.

Measure of ∠*MNQ* = _____

Measure of ∠*OMP* = _____

31.   *PQRS* is a square.

Measure of ∠*QSR* = _____

Measure of ∠*RQT* = _____

Solve. All sides in the figures meet at right angles.
Find the lengths of the unknown sides in each figure. *(Lesson 11.2)*

32.
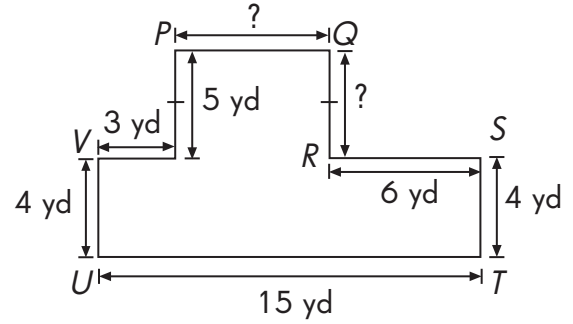

$EF =$ _____ cm

$BC =$ _____ cm

33.

$QR =$ _____ yd

$PQ =$ _____ yd

34.

$NM =$ _____ m

$LK =$ _____ m

35.

$PQ =$ _____ mi

$TS \ =$ _____ mi