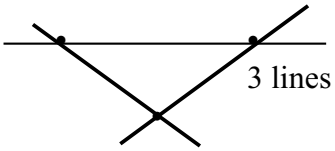
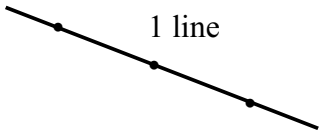
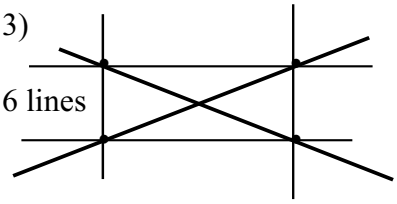
Geometry Development 4.1 KEY
Geometry

How many lines are defined by the given points?

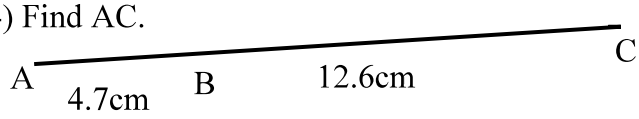
1) 

2) 

3) 

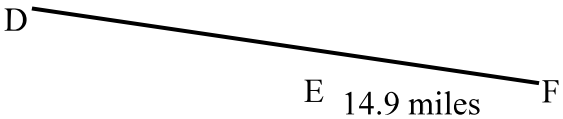
Find the indicated length in numbers 4-7.

4) Find AC.



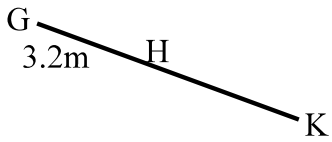
AC = 4.7 cm + 12.6 cm = **17.3 cm**

5) DF = 32.2 miles. Find DE.



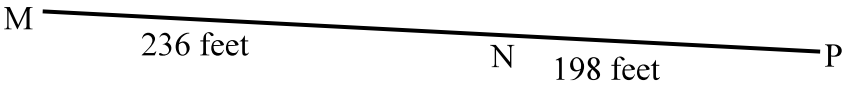
DE = 32.2 mi – 14.9 mi = **17.3 mi.**

6) GK = 9m. Find HK.



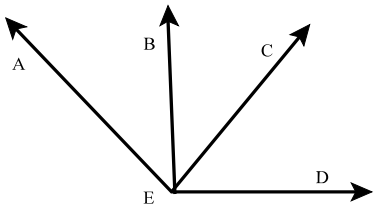
HK = 9 m – 3.2 m = **5.8 m**

7) Find MP.



MP = 236 ft + 198 ft = **434 ft.**

Use the figures at the right to find the angle whose measure is the sum or difference of the measures of the given angles.

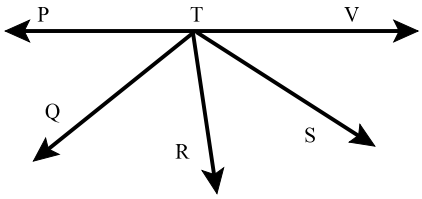


8) m∠AEB + m∠BEC =
= m∠AEC

9) m∠AEC + m∠CED =
= m∠AED

10) m∠QTR + m∠RTS =
= m∠QTS

11) m∠RTS + m∠STV =
= m∠RTV



12) m∠AED – m∠BED =
= m∠AEB

13) m∠QTP + m∠QTS =
= m∠PTS

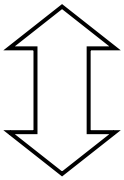
14) m∠PTS – m∠PTQ =
= m∠QTS

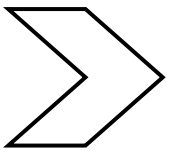
15) m∠QTS + m∠STV =
= m∠QTV

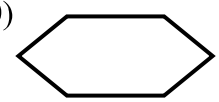
16) m∠AEC – m∠AEB =
= m∠BEC

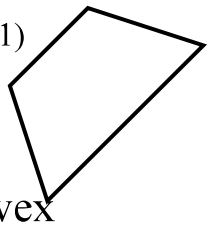
17) m∠RTV - m∠RTS =
= m∠STV

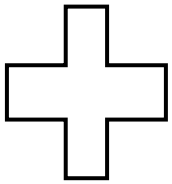
Identify the following polygons by the number of sides and as concave or convex.

18) 
Concave Decagon

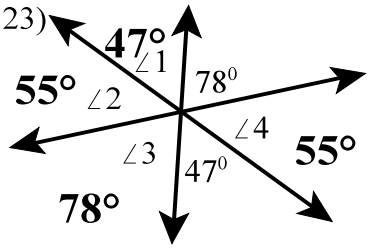
19) 
Concave Hexagon

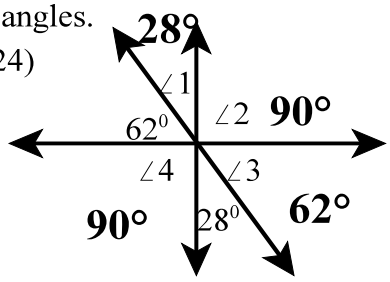
20) 
Convex Hexagon

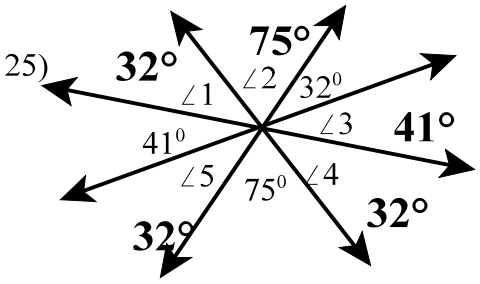
21) 
Convex Quadrilateral

22) 
Concave Dodecagon

Find the measures of the missing angles.

23) 

24) 

25) 

Using the information about the triangle to the right with sides a, b, c, find the missing length.

26) a = 11, b = 60, c = ?

c = 61

27) a = ?, b = 24, c = 26

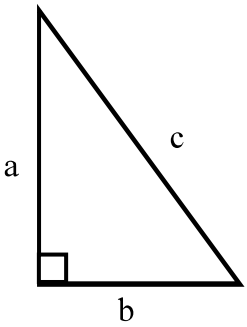
a = 10

28) a = 10, b = ?, c = 12

$b = 2\sqrt{11}$

29) a = 4, b = 12, c = ?

$c = 4\sqrt{10}$



Will a triangle with sides of the given lengths be a right triangle?

30) 85, 77, and 36

Yes

31) 32, 54, and 62

No

32) 39, 80, and 89

Yes

Use the figures at the right to find the indicated arc measure.

33) $m\overset{\frown}{AB}$

145°

34) $m\overset{\frown}{EH}$

136°

35) $m\overset{\frown}{AD}$

158°

36) $m\overset{\frown}{HFE}$

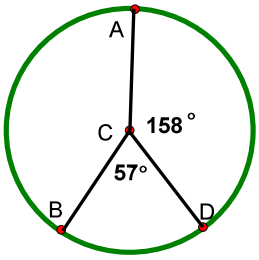
224°

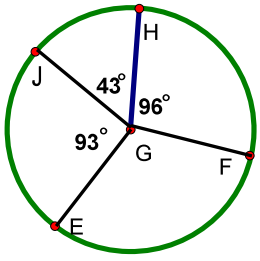
37) $m\overset{\frown}{DBA}$

202°

38) $m\overset{\frown}{HE}$

136°





39) $m\overset{\frown}{ADB}$

215°

40) $m\overset{\frown}{FHE}$

232°

Find the circumference of the circle in each problem below in terms of pi and to the nearest tenth.

41) r = 13 mm

C = 26π mm

C = 81.7 mm

42) r = 22 km

C = 44π km

C = 138.2 km

43) d = 52 ft

C = 52π ft

C = 163.4 ft

44) d = 29 in

C = 29π in

C = 91.1 in

Given the circumference of a circle, find its' radius and diameter to the nearest tenth.

45) $c = 36\pi$ m

D = 36 m
r = 18 m

46) $c = 28\pi$ yds

D = 28 yds
r = 14 yds

47) c = 50 ft

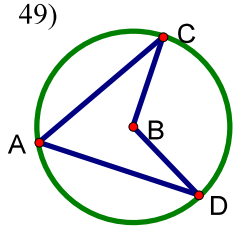
D = 15.9 ft
r = 8.0 ft

48) c = 248 cm

D = 78.9 cm
r = 39.5 cm

Given the measure of an arc, name its' central and inscribed angles and give their measures.

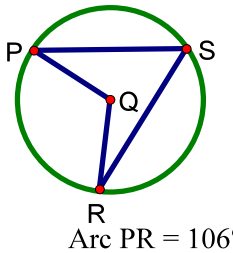
49)



Arc CD = 114°

$m\angle B = 114°$
$m\angle A = 57°$

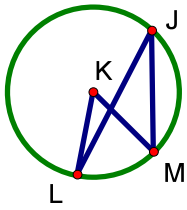
50)



Arc PR = 106°

$m\angle Q = 106°$
$m\angle S = 53°$

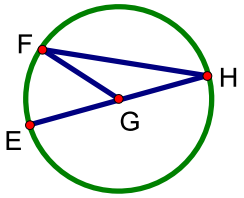
51)



Arc LM = 32°

$m\angle K = 32°$
$m\angle J = 16°$

52)



Arc EF = 29°

$m\angle FGE = 29°$
$m\angle FHE = 14.5°$