Show all work neatly, and circle your answers.

Number of Sides (n)

$\dfrac{360}{ext <}$

$\dfrac{180\,(n-2)}{n}$

REGULAR

$\dfrac{360}{n}$

POLYGONS

$\dfrac{360}{180 - int <}$

or

$\dfrac{180\,(n-2)}{n} = \dfrac{int <}{1}$

Measure of <u>One</u>
Exterior Angle (Ext. ∠)

Measure of <u>One</u>
Interior Angle (Int. ∠)

$180 - ext <$

$180 - int <$

Generic triangle

45

45
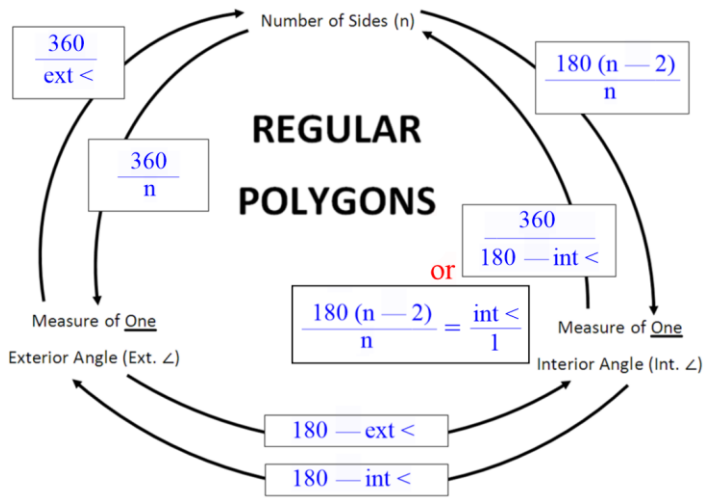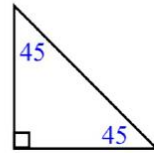
Find the missing sides...

45
18
45

Generic triangle

30

60

30
17
60
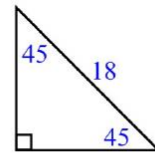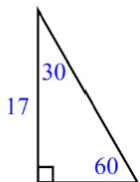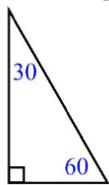
sum of the interior angles of a 42-gon

individual interior angle of a regular 25-gon

sum of the exterior angles of a convex 83-gon

individual exterior angle of a regular 40-gon

sum of the interior angles of a 39-gon

sum of the interior angles of a 65-gon

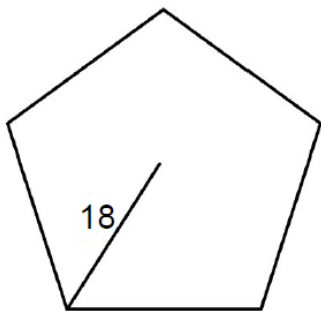individual interior angle of a regular 40-gon

individual interior angle of a regular 120-gon
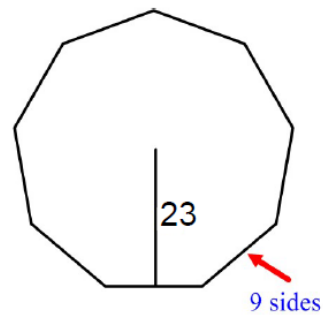
sum of the exterior angles of a convex 91-gon

sum of the exterior angles of a convex 91-gon
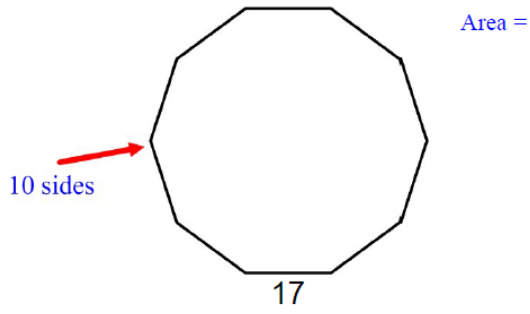
individual exterior angle of a regular 100-gon

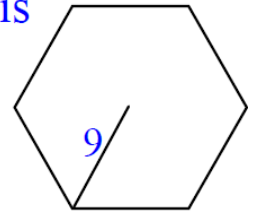individual exterior angle of a regular 50-gon

Area =

18

Area =

23

9 sides

Area =

10 sides

17

If one interior angle of a
regular polygon = 140, how
many sides are there?

Find the sum of the exterior
angles of a 14-sided polygon.

Find the area of this
regular polygon.

9

Find the sum of the interior
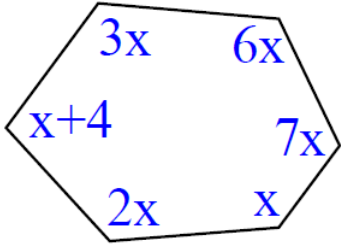angles of a 12-sided polygon.

Find one exterior angle of
a regular 8-sided polygon.

Find the number of sides
of a polygon, if the sum of
the measure of the interior
angles is 26640.

Find the number of sides
of a regular polygon, if
the measure of one exterior
angle = 12.

Find one interior angle of
a regular 5-sided polygon.

Find the value of x.

$3x$ $6x$

$x+4$ $7x$

$2x$ x

Find the linear scale factor, and the area of the
larger blob.

9 mm

Area = 972 mm²

33 mm