

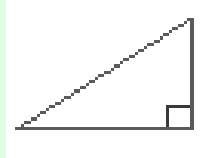
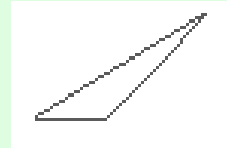
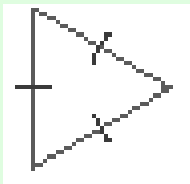
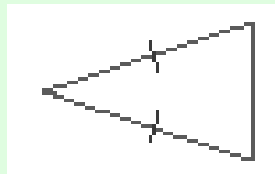
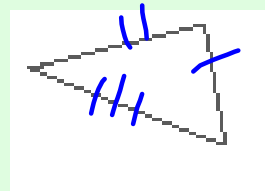
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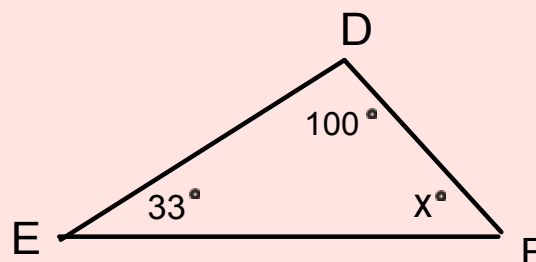
Triangles

A figure made up of three connected line segments.
It has three interior angles with a sum of 180° .

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Classifying Triangles:**3 ways by angles:****Acute:** all three angles are acute**Right:** one angle is a right angle**Obtuse:** one angle is an obtuse angle**3 ways by sides:****Equilateral:** all three sides are equal**Isosceles:** only two sides are equal**Scalene:** no sides are equal

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Ex. 1: Find the angle measureFind the $m \angle F$.

$$100 + 33 + x = 180$$

$$133 + x = 180$$

$$x = 47^\circ$$

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Ex. 2: Use ratios to find angle measures

The measures of the angles of Triangle XYZ are in the ratio 2:3:5. What are the measures of the angles?

Ratio $2:3:5$

$$2x + 3x + 5x = 180$$

$$10x = 180$$

$$x = 18$$

$2 \cdot 18 = 36^\circ$ $3 \cdot 18 = 54^\circ$ $5 \cdot 18 = 90^\circ$

Right Scalene

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Ex. 3: Use exterior angles to find interior angles

The $m \angle 4$ is 135° . Find $m \angle 2$.

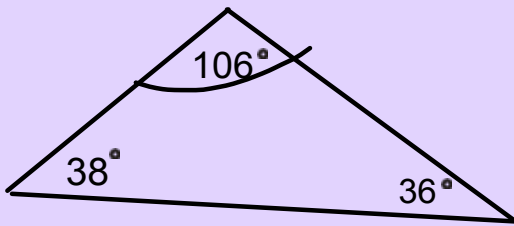
90
 $+45$
 $\hline 135$

180
 -135
 $\hline 45$

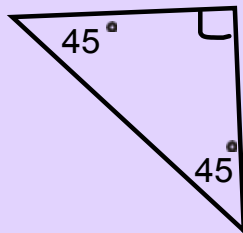
$m \angle 2 = 45^\circ$

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Ex. 4: Classify triangles



OBTUSE
SCALED



RIGHT
ISOSCELES

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O.T.L.

Pages 506 - 508,
6 - 26 even, 30, 32, 33 - 36 all

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