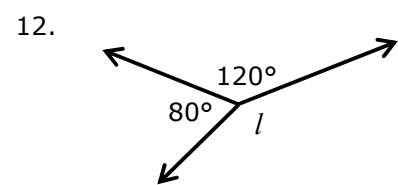
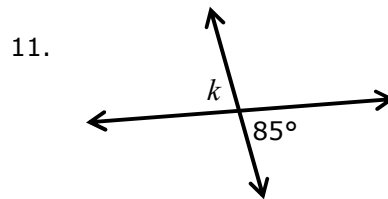
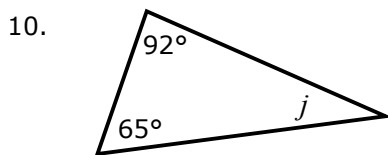
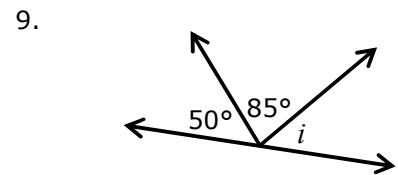
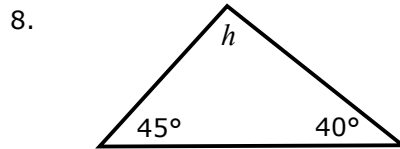
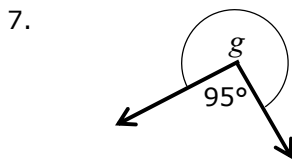
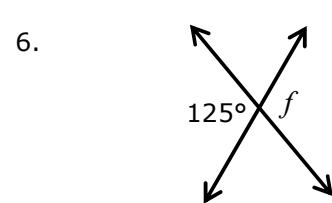
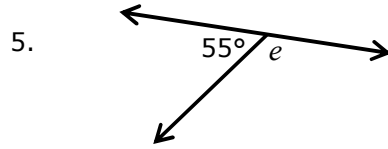
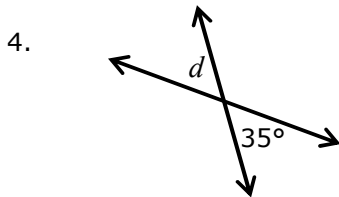
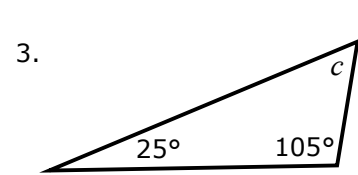
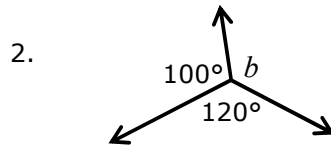
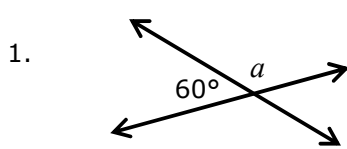
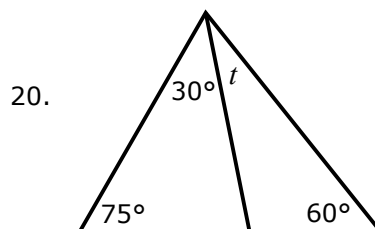
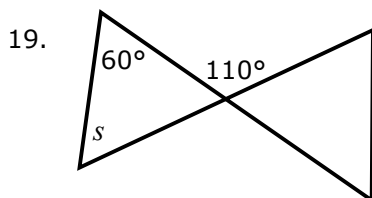
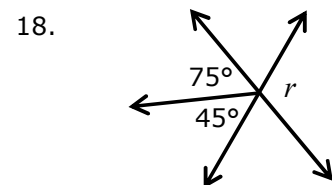
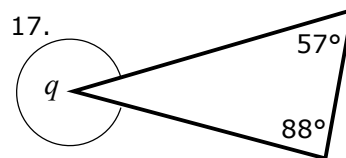
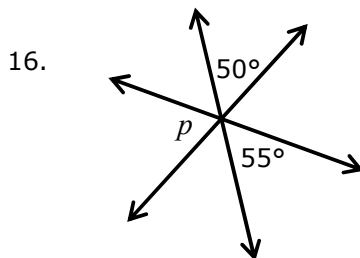
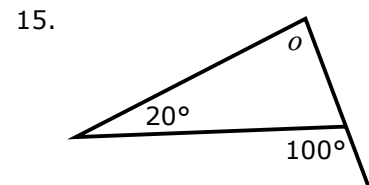
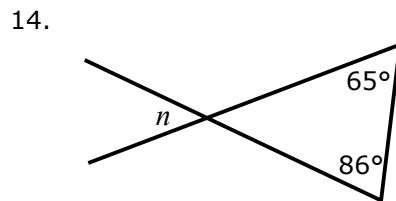
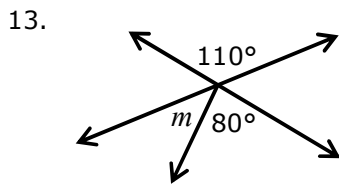


Basic Geometry #1 (No parallel lines, isosceles or polygons)

One Step Problems: Find the values of the unknown angles, giving the reason.



Harder Problems: Give the values of the unknown angles, giving **all** reasons.



Answers : Basic Geometry #1 (No parallel lines, isosceles or polygons)

- $a = 180 - 60 = 120^\circ$ Angles on a straight line add up to 180°
- $b = 360 - 100 - 120 = 140^\circ$ Angles at a point add up to 360°
- $c = 180 - 25 - 105 = 50^\circ$ Angles in a triangle add up to 180°
- $d = 35^\circ$ Vertically opposite angles are equal
- $e = 180 - 55 = 125^\circ$ Angles on a straight line add up to 180°
- $f = 125^\circ$ Vertically opposite angles are equal
- $g = 360 - 95 = 265^\circ$ Angles at a point add up to 360°
- $h = 180 - 45 - 40 = 95^\circ$ Angles in a triangle add up to 180°
- $i = 180 - 50 - 85 = 45^\circ$ Angles on a straight line add up to 180°
- $j = 180 - 65 - 92 = 23^\circ$ Angles in a triangle add up to 180°
- $k = 85^\circ$ Vertically opposite angles are equal
- $l = 360 - 120 - 80 = 160^\circ$ Angles at a point add up to 360°
- $m + 80 = 110$
 $m = 35^\circ$ Vertically opposite angles are equal
- $180 - 65 - 86 = 29$
 $n = 29^\circ$ Angles in a triangle add up to 180°
Vertically opposite angles are equal
- $180 - 100 = 80$
 $o = 180 - 80 - 20 = 80^\circ$ Angles on a straight line add up to 180°
Angles in a triangle add up to 180°
- angle between p and $55 = 50^\circ$ Vertically opposite angles are equal
 $p = 180 - 50 - 55 = 75^\circ$ Angles on a straight line add up to 180°
or angle between 50 and 55 (on a line) then vertically opposite
- $180 - 57 - 88 = 35$ Angles in a triangle add up to 180°
 $q = 360 - 35 = 325^\circ$ Angles at a point add up to 360°
- $r = 75 + 45 = 120^\circ$ Vertically opposite angles are equal
- $180 - 110 = 70$ Angles on a straight line add up to 180°
 $s = 180 - 70 - 60 = 50^\circ$ Angles in a triangle add up to 180°
- $t = 180 - 30 - 75 - 60 = 15^\circ$ Angles in a triangle add up to 180°
or by triangle = 180 for left, on a line, and then triangles = 180 for right