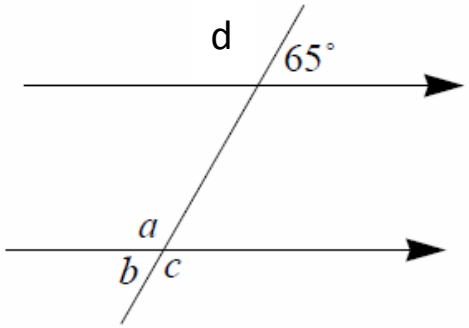
Angle Rules and Parallel Lines: True or False?

You are given some statements about Diagram 1 and you have to decide which are true and which are false. When you have done this for diagrams 1, 3, 5, 7 and 9 you should then make up some statements of your own for the other diagrams

1)



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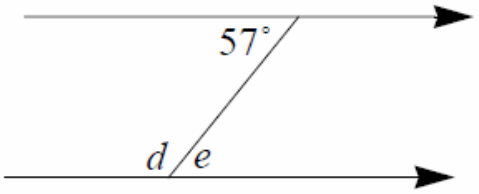
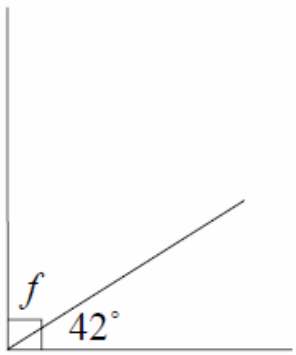


Diagram 1 Angle b = 115^0	Diagram 1 Angles b and c are equal
Diagram 1 Angles a and d are equal because they are alternate angles	Diagram 1 Angles a + b = 180^0 because they form a straight line
Diagram 1 Angle a = 115^0	Diagram 1 Angles a and d are equal because they are corresponding angles
Diagram 1 Angles d + 65^0 = 180^0 because they form a straight line	Diagram 1 Angle c = 65^0 because c and 65^0 are corresponding angles
Diagram 1 Angles b + c = 180^0 because they form a straight line	Diagram 1 Angle d = 115^0
Diagram 1 D = 180^0 - 65	Diagram 1 Angle a = c because they are opposite angles

3)



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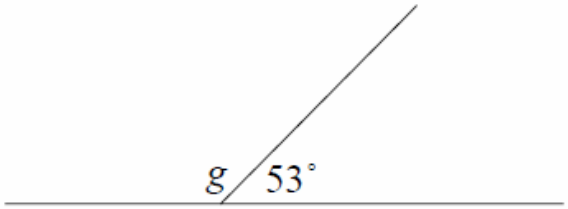
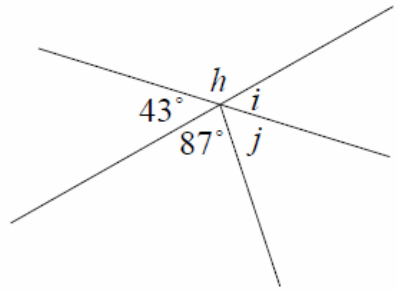


Diagram 3 $180^0 - 42^0 = f$	Diagram 3 Angle f = 58^0
Diagram 3 There is a right angle in the diagram	Diagram 3 A right angle is 90^0
Diagram 3 $f = 42^0$	Diagram 3 Angles $f + 42^0 = 180^0$ because they form a straight line
Diagram 3 Angles $f + 42^0 = 90^0$ because they make a right angle	Diagram 3 Angle f = 48^0

5)



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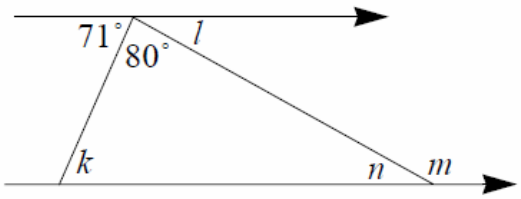
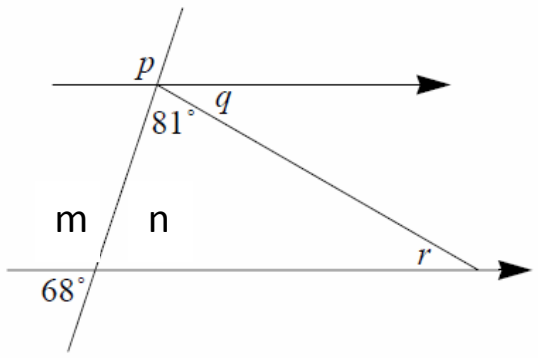


Diagram 5 Angle h = 87^0 because it is opposite the angle 87^0	Diagram 5 j + 87^0 + 43^0 = 180^0 because they form a straight line
Diagram 5 Angle i = 43^0 because they are opposite angles	Diagram 5 Angles j + i = 90^0 because they make a right angle
Diagram 5 Angle h = 137^0	Diagram 5 Angle h is the same as j + 87^0 because they are opposite angles
Diagram 5 Angles h + i = 180^0 because they form a straight line	Diagram 5 Angle j = 60^0
Diagram 5 Angle h = 180^0 - 43^0	Diagram 5 All of the angles add up to 360^0

7)



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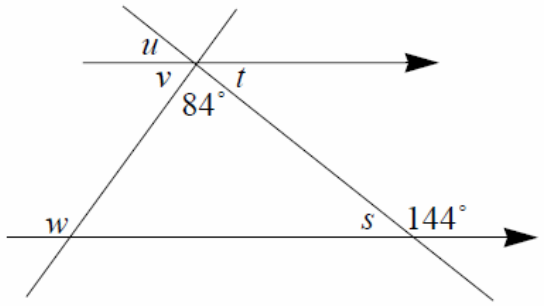
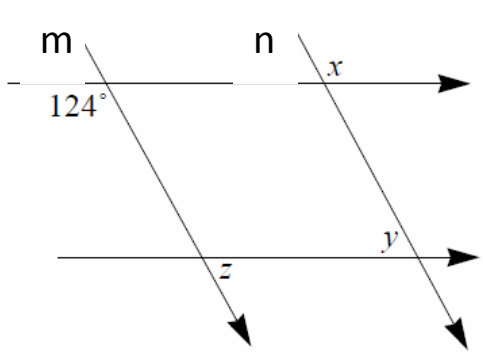


Diagram 7 Angle q + 81^0 = 90^0	Diagram 7 r = 31^0
Diagram 7 81^0 + n + r = 180^0	Diagram 7 Angle p = 81^0 + q because they are opposite
Diagram 7 Angles r and q are equal because they are alternate angles	Diagram 7 n = 81^0 because there is an isosceles triangle
Diagram 7 m = 112^0	Diagram 7 Angle m + 68^0 = 180^0 as they form a straight line
Diagram 7 Angle p = 68^0 because they are corresponding angles	Diagram 7 q = 68^0
Diagram 7 Angle m = q + 81^0 as they form alternate angles	Diagram 7 Angle n = 68^0 because it is opposite the 68^0

9)



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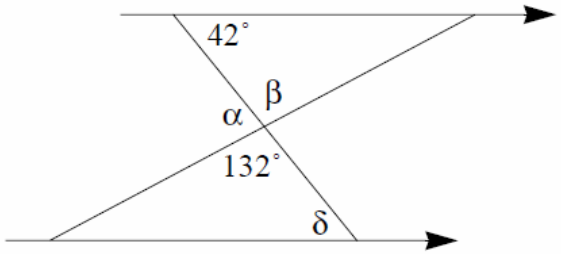

Diagram 9 Angle z and y are called alternate angles	Diagram 9 Angle m = 66^0
Diagram 9 Angle z = 124^0	Diagram 9 Angle x = Angle y
Diagram 9 The angle opposite the 124^0 corresponds to angle x	Diagram 9 Angles x and y are called alternate angles
Diagram 9 m + 124^0 = 180^0 as they form a straight line	Diagram 9 Angle x is opposite the 124^0
Diagram 9 Angles m and n are corresponding angles	Diagram 9 Angle n = 56^0
Diagram 9 There are only 2 different sized angles in this diagram	Diagram 9 Angles n and y are corresponding angles