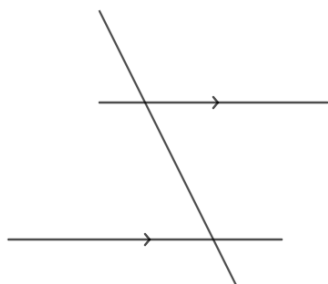
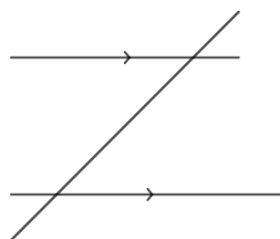


Angles in Parallel Lines – www.m4ths.com – Steve Blades ©

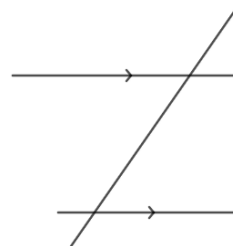
(1) (a) On the diagrams below, draw a pair of angles matching the description given.



Alternate Angles

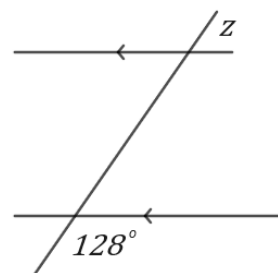
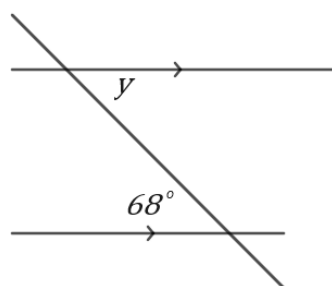
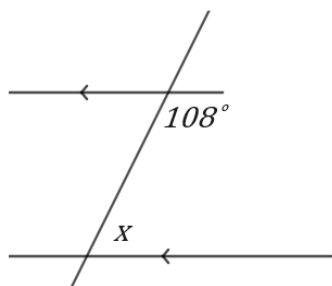


Corresponding Angles

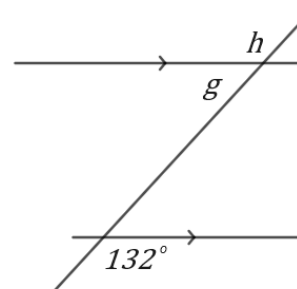
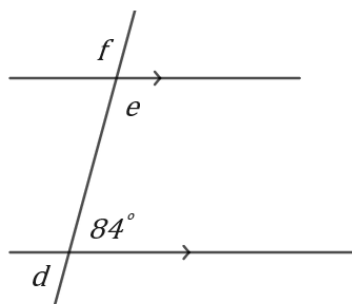
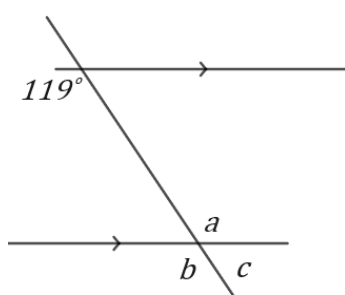


Co-interior Angles

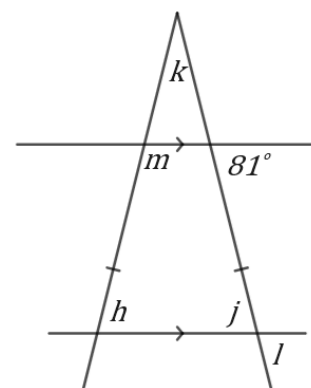
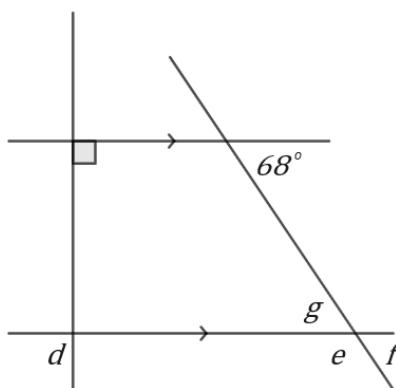
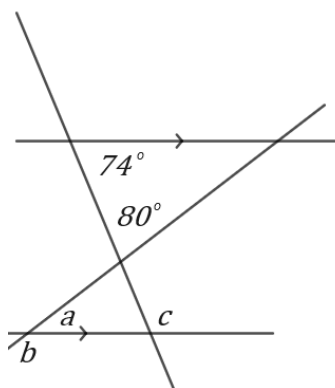
(b)* Mark TWO different sets of each angle on the diagrams above. Call one set x and the other set y
 (2) Find the size of each of the angles below.



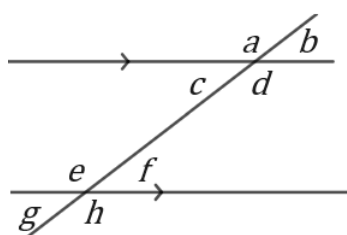
(3) Find the size of each of the missing angles below.



(4) Find the size of each of the missing angles below.

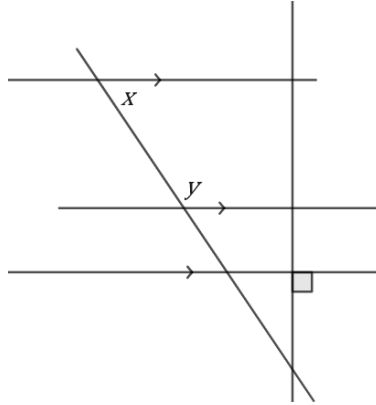


(5) Complete the sentence for each pair of angles below:



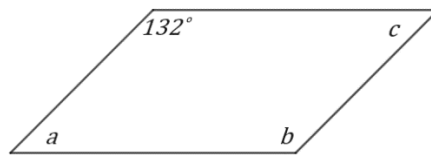
- a and e are _____ angles.
- d and f are _____ angles.
- e and h are _____ angles.
- c and f are _____ angles.
- d and h are _____ angles.
- c and e are _____ angles.
- a and c add to _____ because _____
- d and e are _____ angles.
- g and c are _____ angles.

(6) (a) On the diagram below mark all the angles that are x degrees and all the angles that are y degrees.

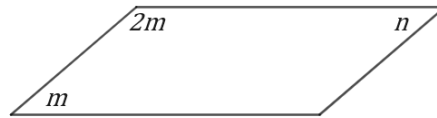


- (b) Explain why x and y sum to 180° .
- (c)* State two other reasons why x and y sum to 180°

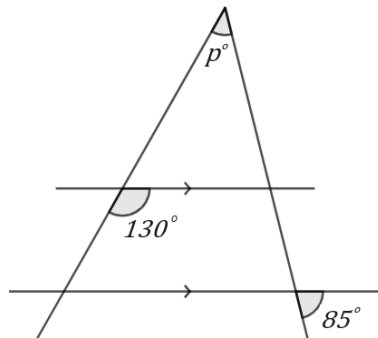
(7) The diagram below shows a parallelogram.



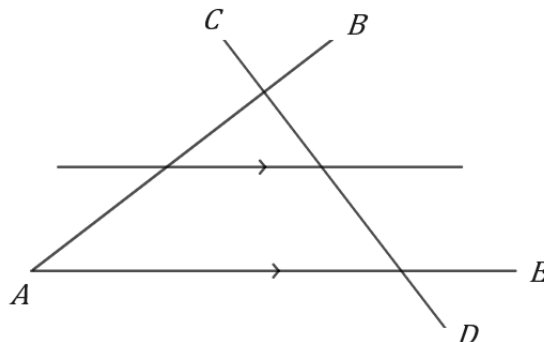
- (a) Using co-interior angles, find the value of a .
- (b) Hence find the size of the other angles in the parallelogram.
- (c) A different parallelogram is shown below. Using your answer to part (a).



(8) Find the value of p in the diagram below. You MUST write a reason for each step of your workings or show workings on the diagram.



(9) In the diagram below the lines AB and CD are perpendicular and $\angle BAE = x$. Given that $y = 180 - x$, mark the angles on the diagram with size y .



(10) One angle in a parallelogram is x° in size. Write down the size of the other angles in the parallelogram in terms of x .