

WALT to write down angle sizes on a parallel line

Success Criteria: I know the rules for calculating angles

- I can identify parallel lines
- I know that line that cuts across two parallel lines is called a transversal cuts parallel lines

[Video](#)

To do

I need to learn The rules

- Corresponding angles are equal.
- Vertical angles/ Vertically opposite angles are equal.
- Alternate interior angles are equal.
- Alternate exterior angles are equal.
- Pair of interior angles on the same side of the transversal are supplementary.

Practical work to build my understanding

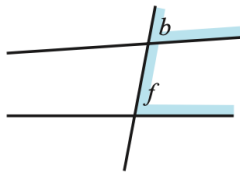
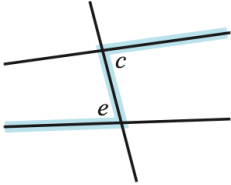
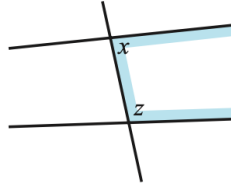
Draw two parallel lines making sure that the lines are parallel which means the distance is maintained use your grid lines.

Now use a protractor and measure the angles that I have marked on board

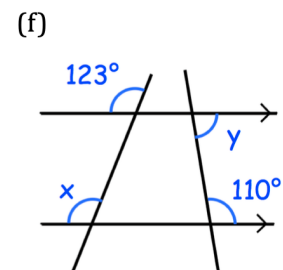
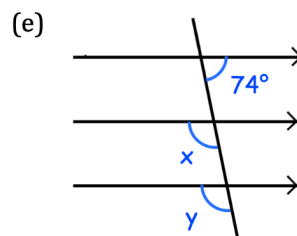
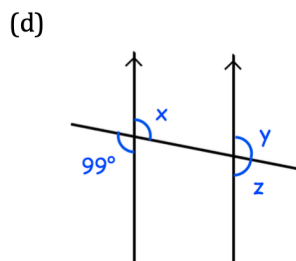
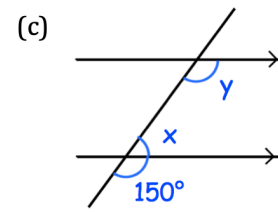
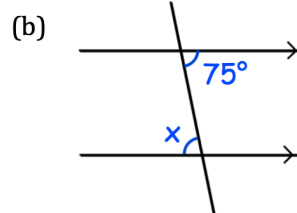
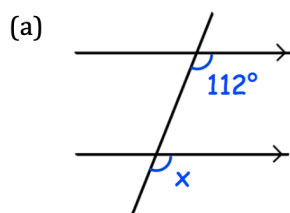


Write your finding and match with the rules given

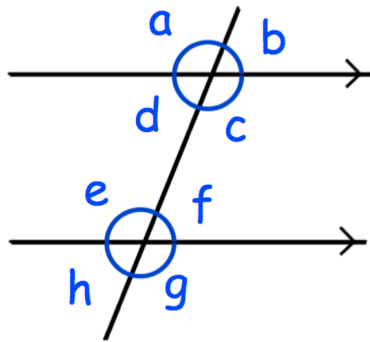
Rules

Corresponding angle pairs	Alternate angle pairs	Co-interior angle pairs
 <p>The angles marked b and f are corresponding angles because they are both in the <i>same position</i>, i.e., on the <i>same side</i> of the transversal and on the <i>same side</i> of the two straight lines, in this case <i>both above</i> the line.</p>	 <p>The angles marked c and e are alternate angles. They are on <i>opposite sides</i> of the transversal and <i>between</i> the two straight lines.</p>	 <p>The angles marked x and z are co-interior angles because they are both on the <i>same side</i> of the transversal and <i>between</i> the two straight lines.</p>

Question 1: Write down the sizes of the lettered angles.

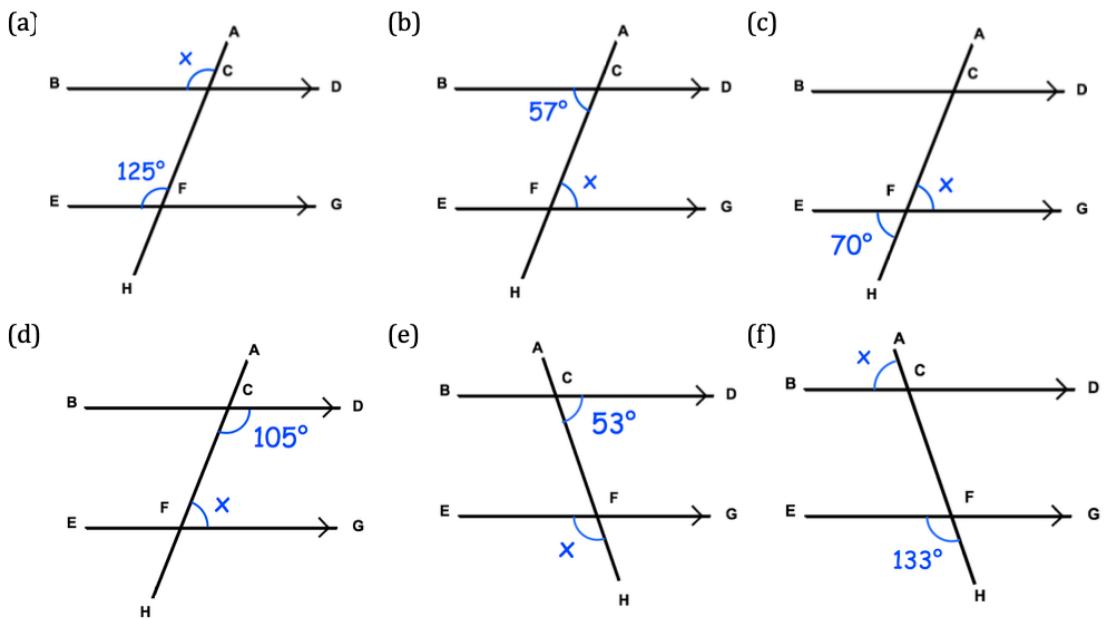


Question 2:

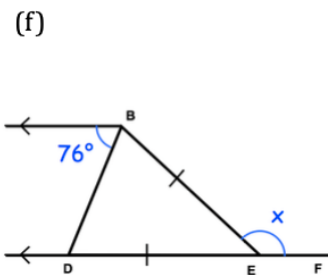
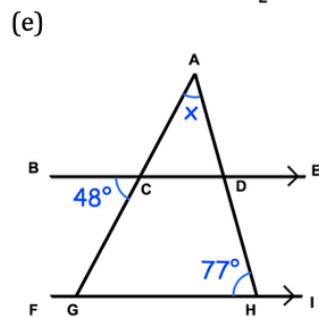
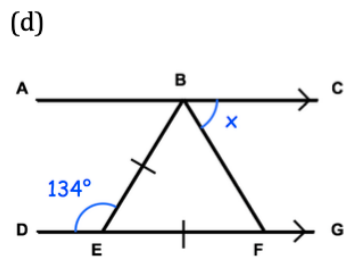
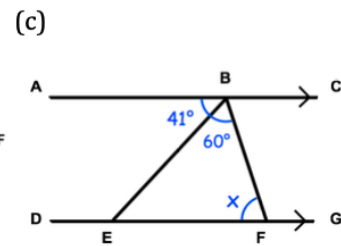
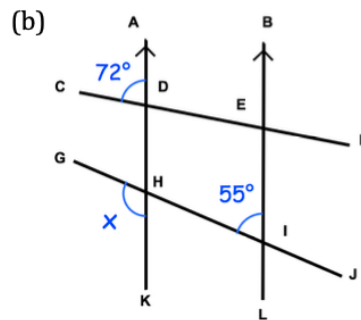
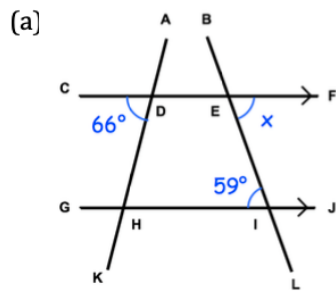


- (a) Which angle is corresponding to angle c?
- (b) Which angle is alternate to angle d?
- (c) Which angle is corresponding to angle h?
- (d) Which angle is vertically opposite to angle a?
- (e) Which angle is alternate to angle e?
- (f) Which angle is co-interior with angle c?
- (g) Which angle is vertically opposite to angle h?
- (h) Which angle is co-interior with angle e?
- (i) Which angle is corresponding to angle a?
- (j) Which angle is vertically opposite to angle g?

Question 3: Find the angle x in each question below.
Give reasons for your answer.

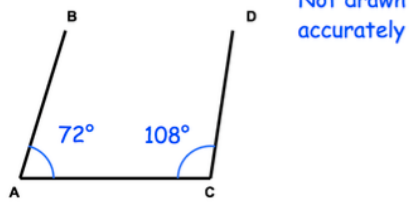


Question 4: Find the angle x in each question below.
Give reasons for your answer.

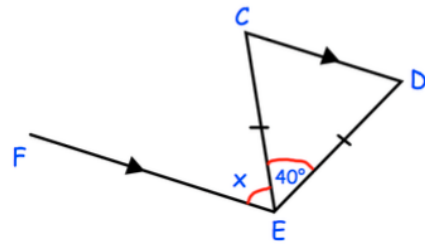


Apply your knowledge to show your understanding

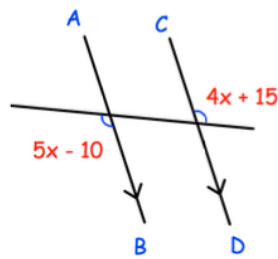
Question 1: Are the lines AB and CD parallel? Explain your answer.



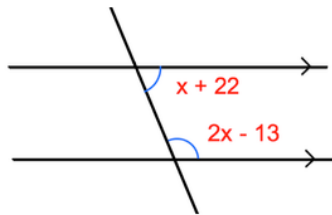
Question 2: Find the missing angle.
Give reasons for your answer.



Question 3: Find x



Question 4: Find x



Question 5: Matilda is proving that the angles in a triangle add up to 180° .
She has started with this diagram.
Complete her proof.

