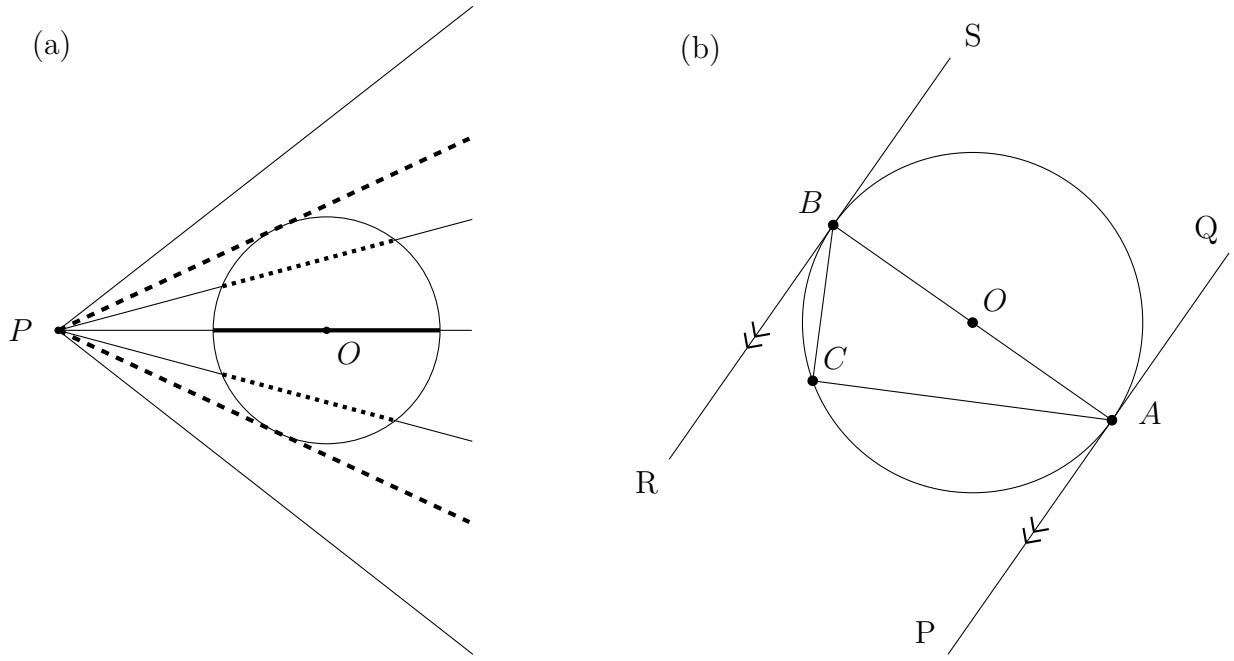
1. Diagram (a) shows a circle centre O and 7 lines from a point P



(a) Use **chord**, **diameter** and **tangent** to complete this key for diagram (a)

———	Lines and line segments (parts of longer lines) which have no special name.
- - - - - - - -	A _____ is a line that meets the circumference 1 time.
.....	A _____ is a line segment between 2 points on the circumference.
———	A _____ is a chord that goes through the centre of a circle.

Diagram (b) shows a circle centre O, triangle ABC and two parallel lines PQ and RS

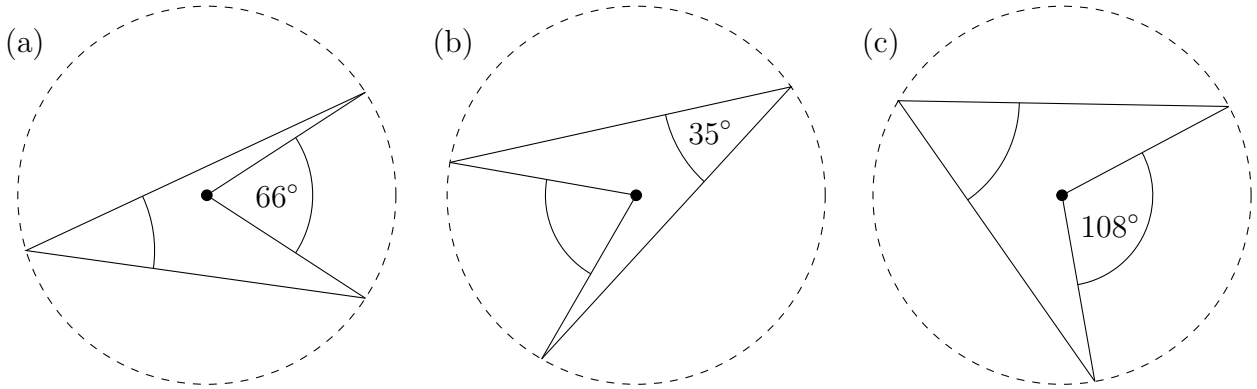
(b) Complete this table

Definition	Name	Example(s)
A straight line that meets the circumference once.	tangent	PQ and .....
A line segment (part of a longer line) between two points on the circumference.	chord	..... , ... and .....
A chord that goes through the centre of the circle.	diameter	.....

2.

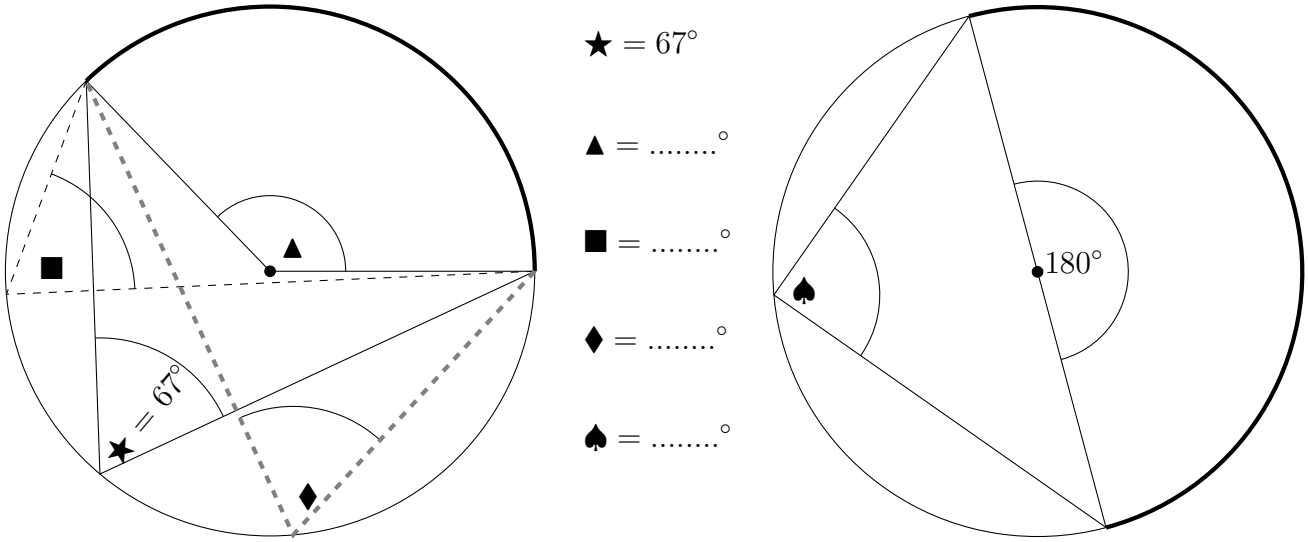
2. **not. written. yet**

3. "The angle at the centre is twice the angle at the circumference from the same arc" is a rule to find missing angles in circles.
   For each diagram (i) draw the arc
   (ii) write in the missing angle



4. "The angle at the centre is twice the angle at the circumference from the same arc" is a rule to find missing angles in circles.

   (i) Complete the missing angles ▲, ■, ♦ and ♠

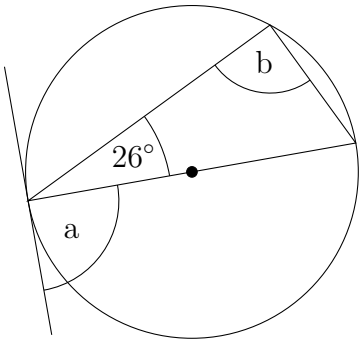


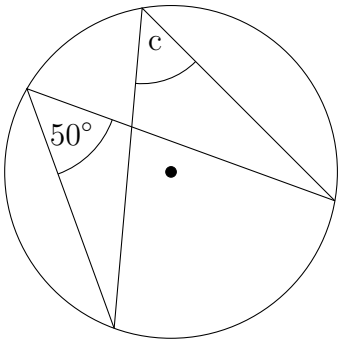
   (ii) Complete: A quicker way to work out ■ and ♦, without bothering to work out ▲ and having to write the rule "The angle at the centre is twice the angle at the circumference from the same arc" is to use the rule:
   "Angles at the circumference from the same arc are ....."

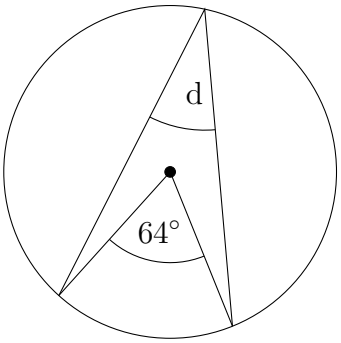
   (iii) Complete: The rule **"Angle in a semi-circle = ... °"** saves having to write "The angle at the centre = 180° because the diameter is a straight line" and "The angle at the centre is twice the angle at the circumference from the same arc"

5. Write down the size of each angle marked with a letter.

   Give a reason for each answer. {FYI • is the centre of each circle}







a = ... ° because .....

b = ... ° because .....

c = ... ° because .....

d = ... ° because .....