

## UNIT 5 *Angles*

## Overhead Slides

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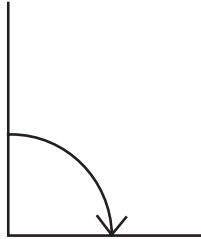
### **Overhead Slides**

- 5.1 Angles and Turns
- 5.2 Turns
- 5.3 Compass Rose
- 5.4 Measuring Angles
- 5.5 Classifying Angles
- 5.6 Angles on a Straight Line
- 5.7 Angles at a Point
- 5.8 Constructing Triangles
- 5.9 Angles in a Triangle
- 5.10 Classifying Triangles

## OS 5.1

*Angles and Turns*

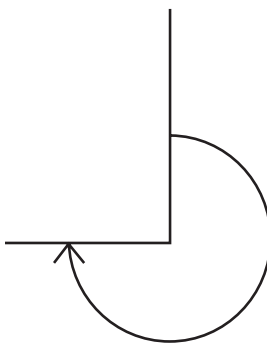
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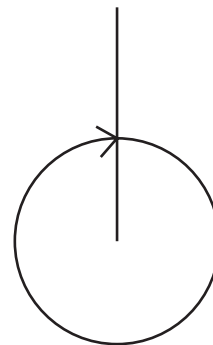
$\frac{1}{4}$  turn is  $90^\circ$



$\frac{1}{2}$  turn is  $180^\circ$



$\frac{3}{4}$  turn is  $270^\circ$



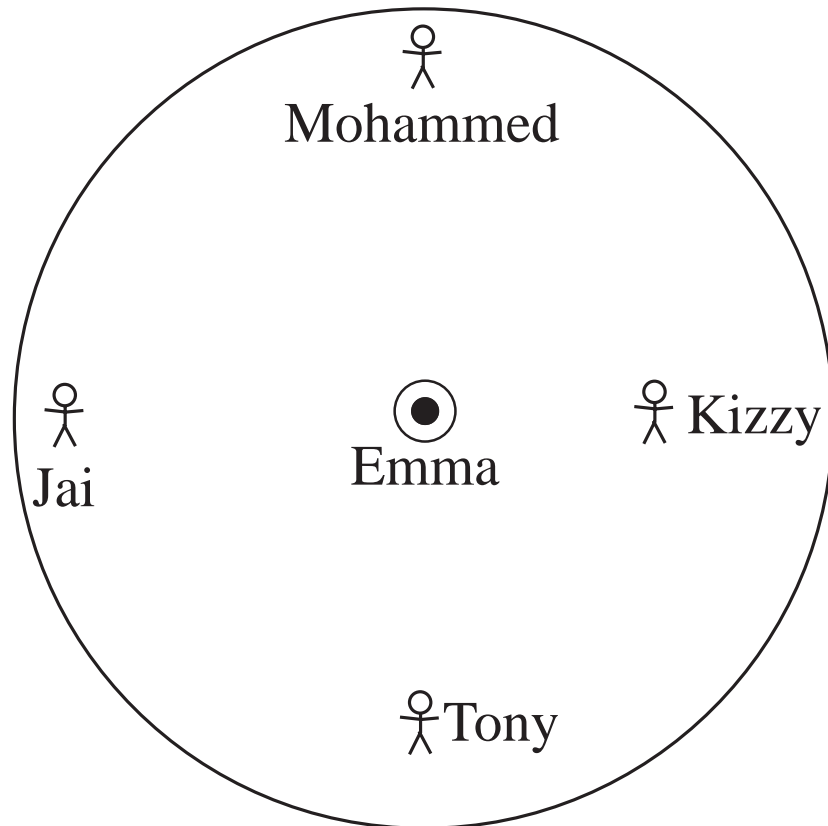
1 turn is  $360^\circ$

## OS 5.2

## Turns

Emma stands in the circle shown in the picture.

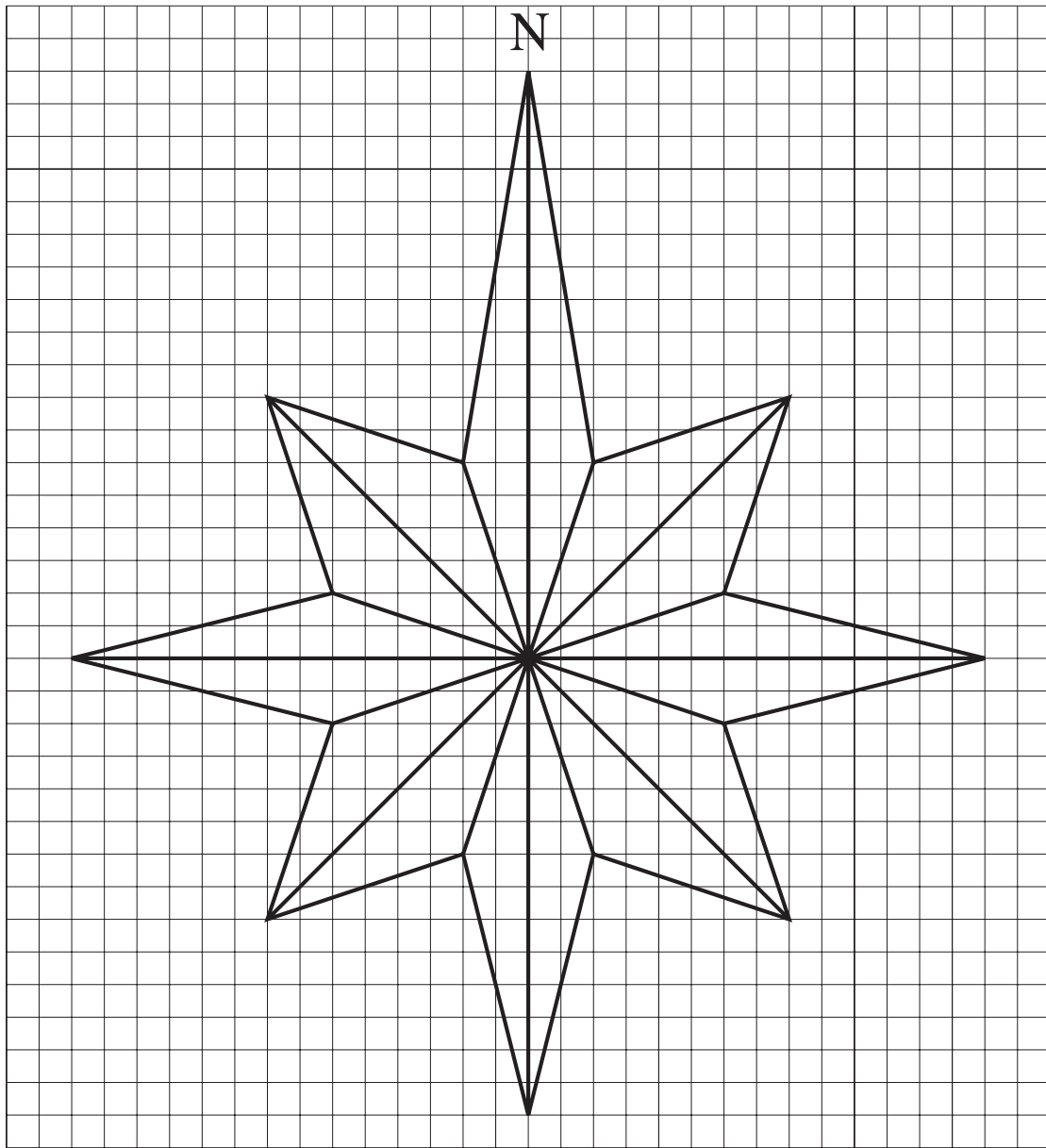
She starts looking at Mohammed.



1. Emma turns around until she is looking at Mohammed again.  
What angle has she turned through?
2. What angle does Emma turn through if she moves:
  - (a) from looking at Mohammed to looking at Kizzy,
  - (b) from looking at Kizzy to looking at Jai,
  - (c) from looking at Jai to looking at Tony?
3. What angle does Emma turn through if she completes:
 

(a) $\frac{3}{4}$ turn,	(b) $1\frac{1}{2}$ turns,
(c) 2 turns,	(d) $1\frac{1}{4}$ turns?

## OS 5.3

*Compass Rose*

1. Label directions: (a) E, W and S, (b) NE, NW, SE, SW.
2. Describe ways of turning from N to NE.
3. What angle do you turn through from:  
(a) NE to SE clockwise, (b) SW to W anticlockwise?
4. In what direction are you facing if you turn through:  
(a)  $90^\circ$  clockwise from NE,  
(b)  $135^\circ$  anticlockwise from SE?

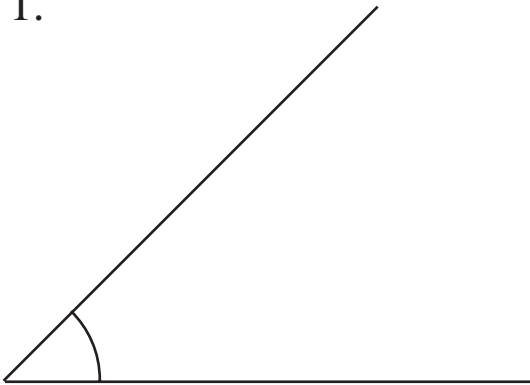
**OS 5.4***Measuring Angles*

For each angle below:

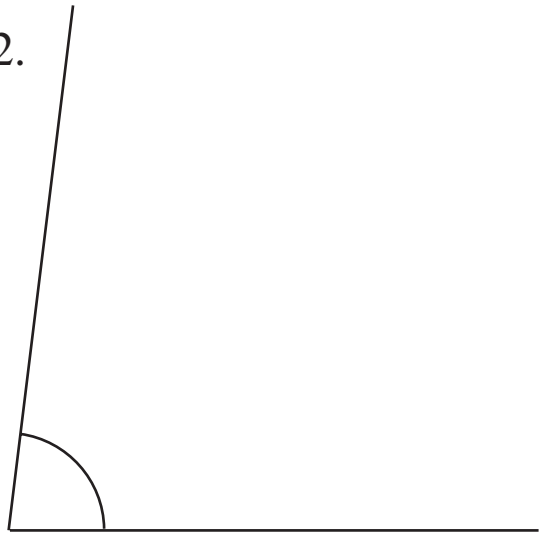
(a) *estimate* the size of the angle,

(b) *measure* the angle and compare it with your estimate.

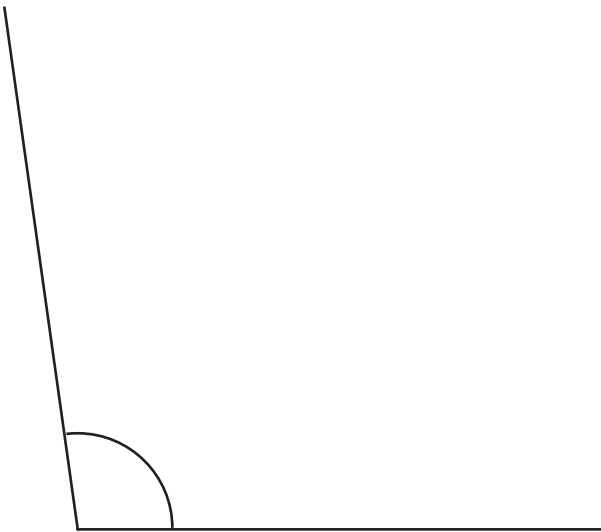
1.



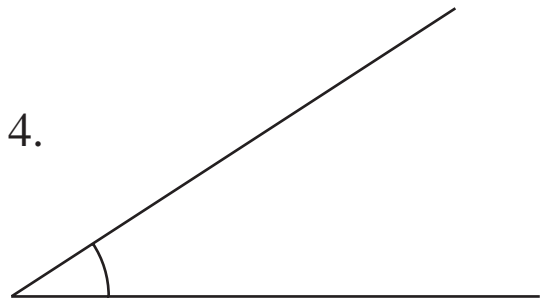
2.



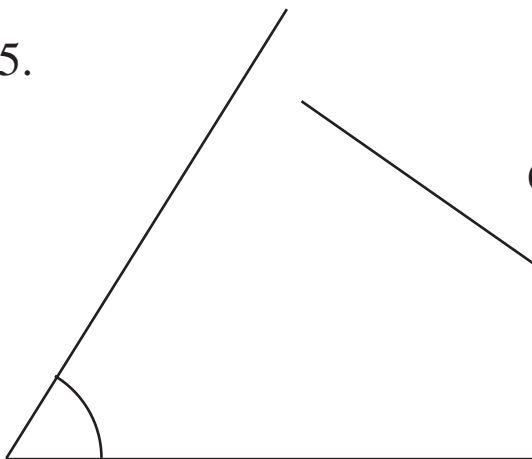
3.



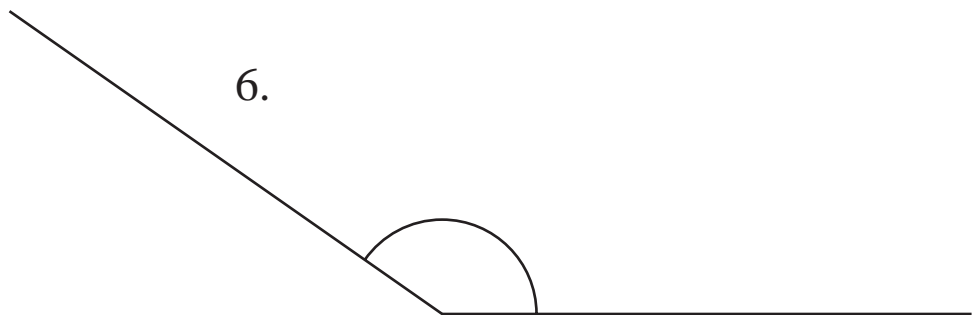
4.



5.



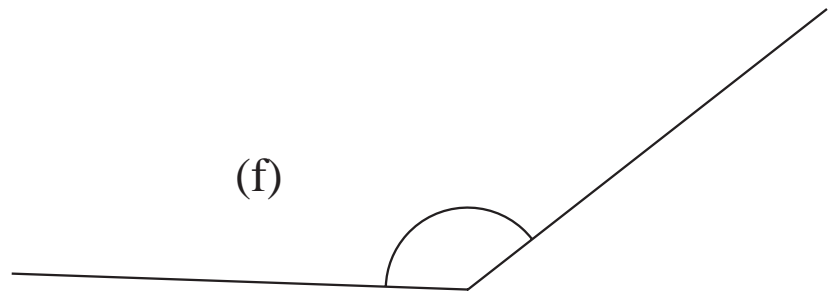
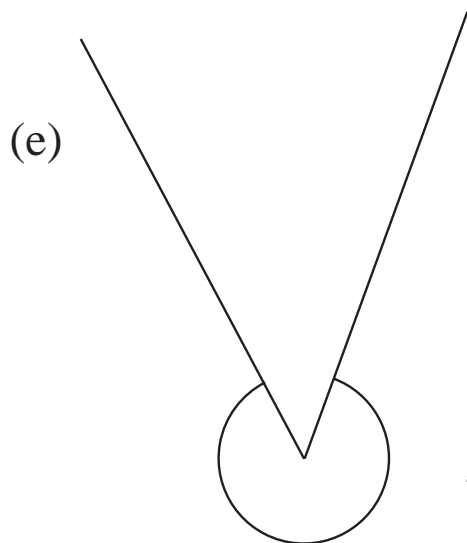
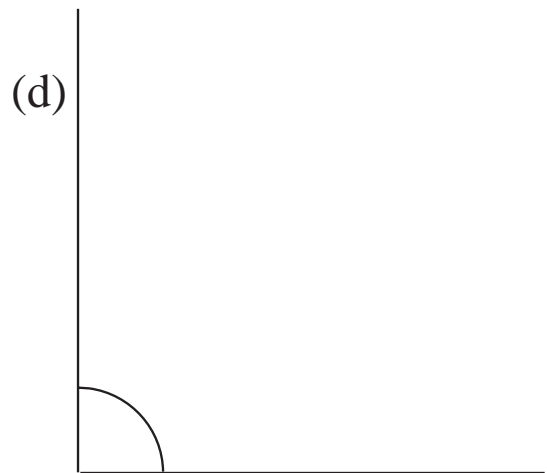
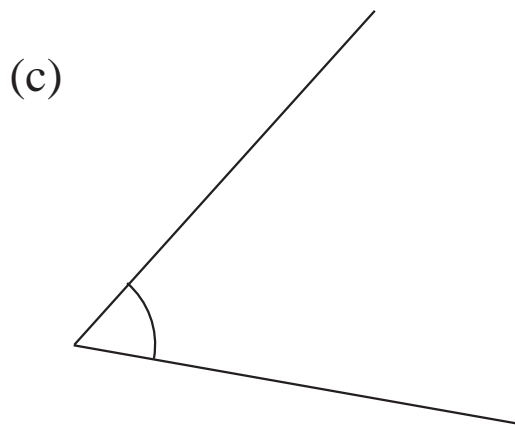
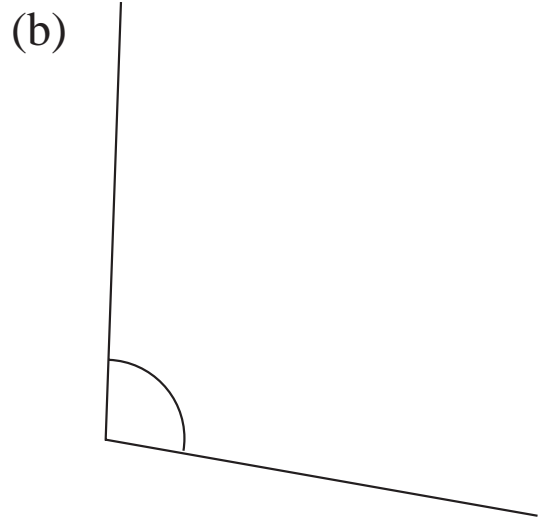
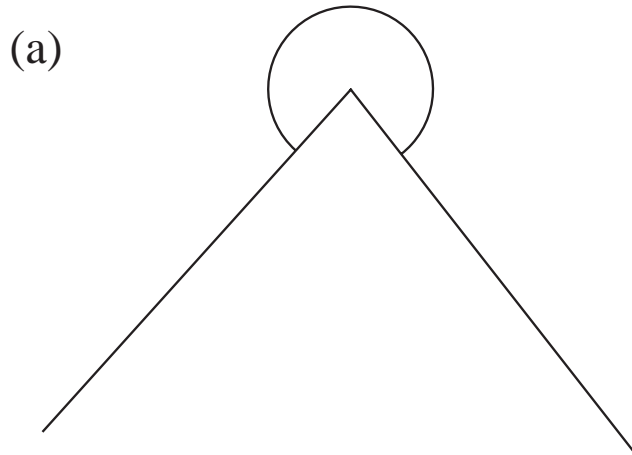
6.



**OS 5.5***Classifying Angles*

Classify each of these angles as an:

*ACUTE, OBTUSE, REFLEX* or *RIGHT ANGLE*

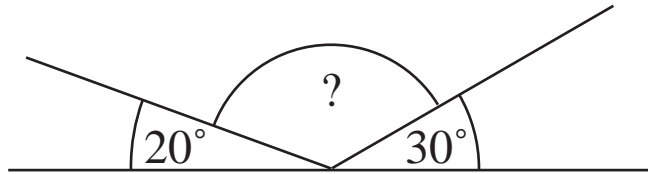


For the *reflex* angles, use a protractor to measure the angle.

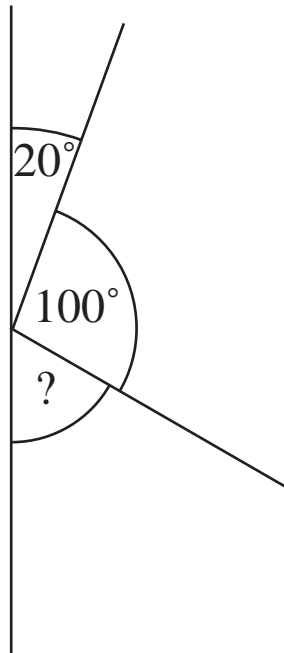
**OS 5.6***Angles on a Straight Line*

Find the unknown angles.

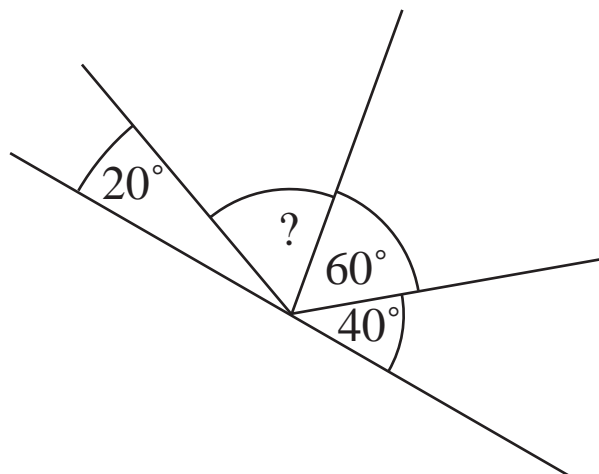
(a)



(b)



(c)

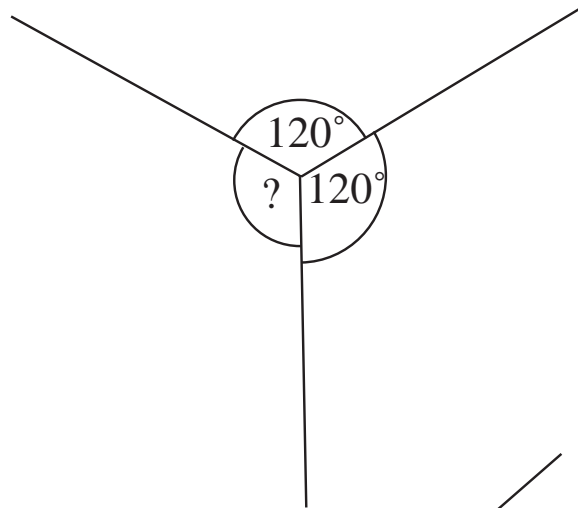


# OS 5.7

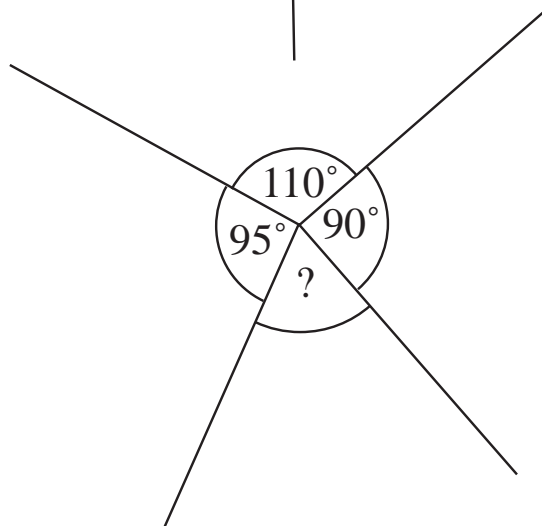
## Angles at a Point

Find the unknown angles.

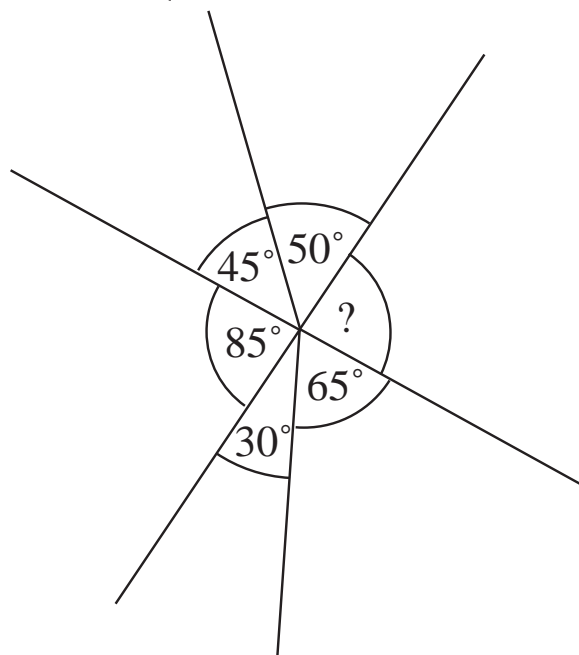
1.



2.



3.



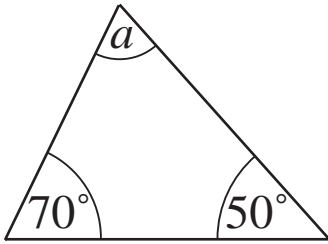


## OS 5.9

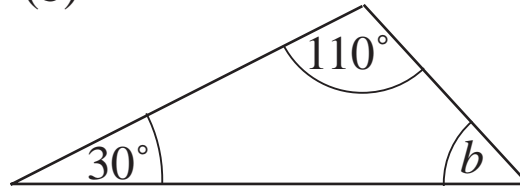
## Angles in a Triangle

Find the unknown angle in each of the following triangles:

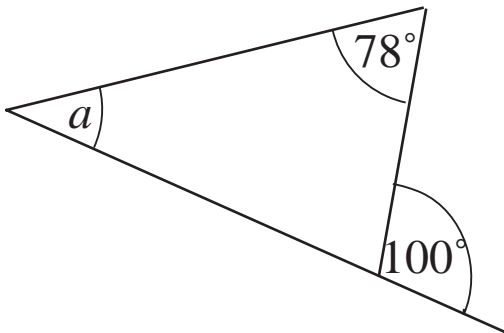
(a)



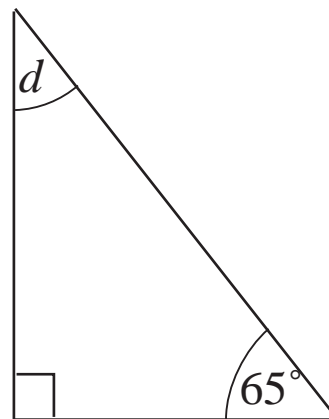
(b)



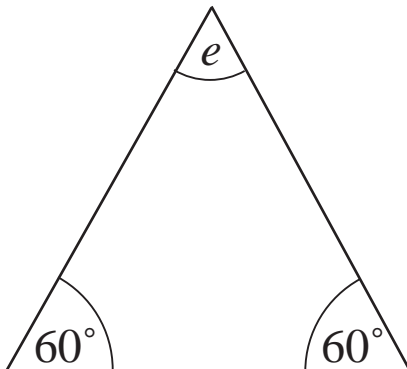
(c)



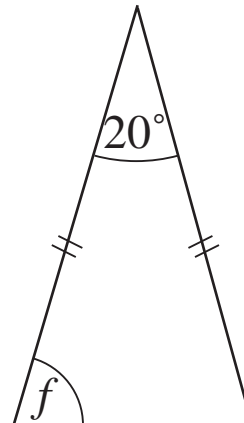
(d)



(e)

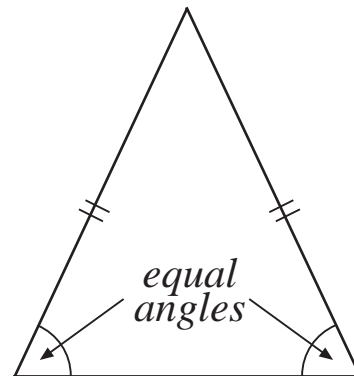


(f)

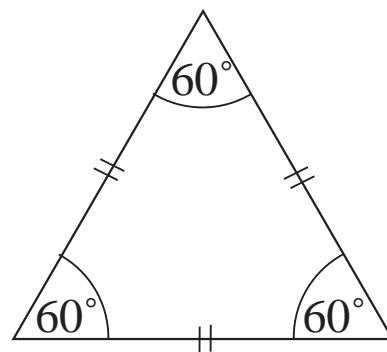


**OS 5.10***Classifying Triangles**Isosceles Triangles*

- 2 equal angles
- and
- 2 sides of equal lengths

*Equilateral Triangles*

- all angles equal ( $60^\circ$ )
- and
- all sides of equal lengths

*Scalene Triangles*

- all angles of different sizes
- and
- all sides of different lengths

