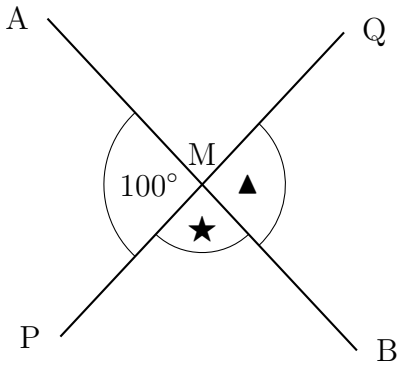


1. Here is a diagram of two straight lines AB and PQ which meet at M



Complete:

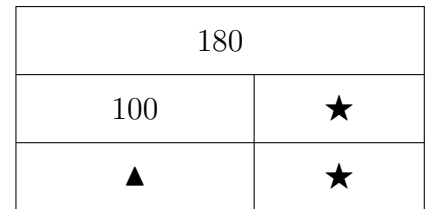
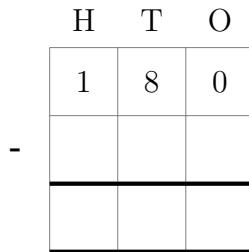
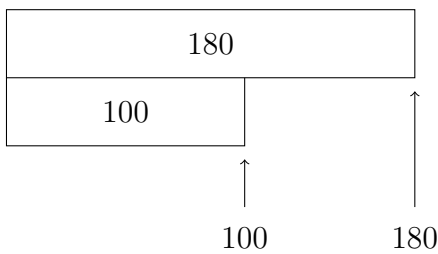
★ = ° because **angles on a straight line add up to 180**

▲ = ° can have 2 possible reasons

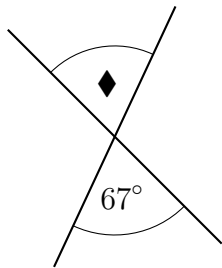
1. for ★ **angles on a straight line add up to 180°**, then
for ▲ **angles on a straight line add up to 180°**

2. the quick way: **vertically opposite angles are equal**

You may use these diagrams to help calculate ★ and ▲



2. Here are two straight lines which cross.



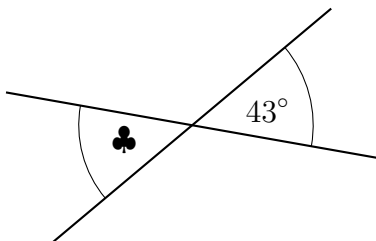
Complete:

◆ = ° because

.....

.....

3. Here are two straight lines which cross.



Complete:

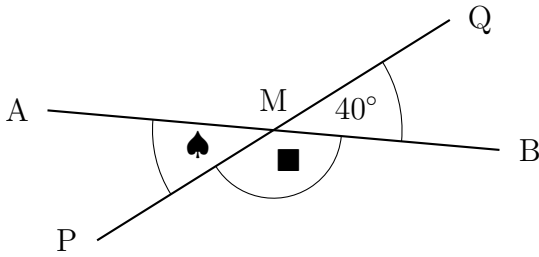
♣ = ° because

.....

.....

Turnover for more questions and answers

4. Here is a diagram of two straight lines AB and PQ which meet at M



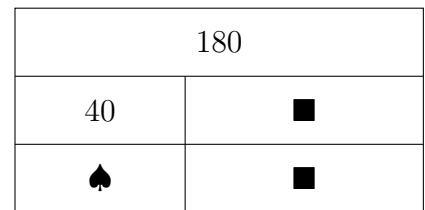
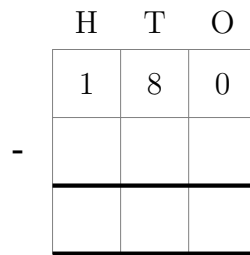
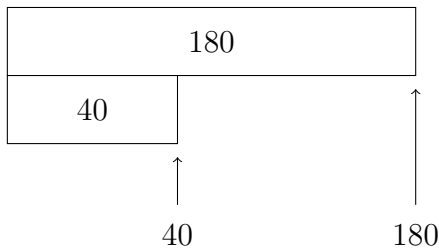
(i) Complete:

■ = ° because **angles on a straight line add up to 180°**

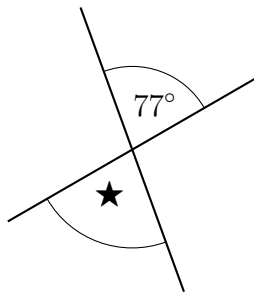
♠ = ° can have 2 possible reasons

- for ■ angles on a straight line add up to 180°, then for ♠ angles on a straight line add up to 180°
- the quick way: **vertically opposite angles are equal**

You may use these diagrams to help calculate ■ and ♠



5. Here are two straight lines which cross.



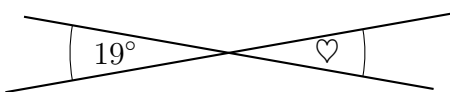
(ii) Complete:

★ =° because

.....

.....

6. Here are two straight lines which cross.



(ii) Complete:

♥ =° because

.....

.....

Answers

- Q1: ★ = 80, ▲ = 100 Q2: ◆ = 67 because vertically opposite angles are equal OR angles on a straight line add up to 180° and work out 113 and angles on a straight line add up to 180°
- Q3: ♣ = 43 because vertically opposite angles are equal OR angles on a straight line add up to 180° and work out 137 and angles on a straight line add up to 180°
- Q4: ■ = 140, ♠ = 40 Q5: ★ = 77 because vertically opposite angles are equal OR work out 103 and write angles on a straight line add up to 180° twice Q6: ♥ = 19 and work out 162 and write angles on a straight line add up to 180° twice