Angles revision 2020.

If you don’t have a protractor / angle measurer at home – don’t worry, you only need it for one question!

**Q1.**

This is a design for an arrowhead.



Below is part of a larger scale drawing of the arrowhead.

The drawing has the same size angles as the design.

Draw two more lines to complete the arrowhead **accurately**.

Use an angle measurer (protractor).



2 marks

**Q2.**

Here is a shape on a square grid.



For each sentence, put a tick (✔) if it is true.

Put a cross (✘) if it is not true.

|  |  |  |
| --- | --- | --- |
|   | Angle **C** is an **obtuse** angle. |   |
|   | Angle **D** is an **acute** angle. |   |
|   | Line **AD** is **parallel** to line **BC**. |   |
|   | Line **AB** is **perpendicular** to line **AD**. |   |

2 mark

**Q3.**

Here is a dial.



The pointer on this dial turns in a **clockwise** direction.

The pointer is at **0**.

Which **number** does it point to after a turn of **270°**?



1 mark

The pointer moves from **10** to **11**

How many **degrees** does it turn through?



1 mark

**Q4.**

The diagram shows three **identical** isosceles triangles.



What are the sizes of angles *r* and *t*?



2 marks

**Q5.**

**PQ** is a straight line.

                                                                                     Not drawn
  accurately



**Calculate** the size of angle *x*.

Do **not** use a protractor (angle measurer).



1 mark

**Q6.**

Here is an isosceles triangle.



Calculate the size of angle *x*.

Do **not** use a protractor (angle measurer).



1 mark

**Q7.**

In this diagram **AB** is parallel to **CD**.



Work out the value of angle ***x***.

**Do not** use an angle measurer.



1 mark

Calculate the value of angle ***y***.

**Do not** use an angle measurer.



1 mark

**Q8.**

The shape **ABCD** is a **rectangle**.

**BD** is **parallel** to **EF**.



Calculate the sizes of the angles **x** and **y**.

Do **not** use an angle measurer (protractor).

 

 

2 mark

**M1.**          Markers will use an acetate overlay of this page to mark children’s answers to this question.

          

*Award* ***TWO*** *marks for completed diagrams which have* ***BOTH****angles in the range 39° to 41° inclusive, ie all lines drawn
within the inner boundary on the above diagram.*

*If this is not the case, award* ***ONE*** *mark for diagrams which
have* ***BOTH*** *angles in the range 38° to 42° inclusive, ie all
lines within the wider boundary on the above diagram. The
diagram need not be completed.*

*Accept slight errors in the completion of the diagram, provided
the intention is clear, eg if the lines meeting at the tip of the
arrow are slightly too long or too short.*

**[2]**

**M2.**          Award **TWO** marks for the boxes ticked and crossed as shown:









          If the answer is incorrect, award **ONE** mark for any three boxes ticked or
crossed correctly **OR** two boxes correctly ticked and the other two boxes left blank.

**Up to 2**

**[2]**

**M3.**          (a)     9

**1**

(b)     30

**1**

**[2]**

**M4.***r* = 150 **and** *t* = 110

*Values must be unambiguously associated with the correct letter for the award of 2m or 1m*

**2**

***or***

*r* **or** *t* correct

**OR**

Shows or implies a complete, correct method for both angles, eg:

•        40 + 50 + 50 = 180 *(error)*

360 − 50 − 50 − 50 = 210

180 − 50 = 130

*!     Answers for r and t transposed*

*If r is 110 and t is 150, then award 1m*

*!     Follow-through from incorrect base angle seen on the diagram*

*Award 1m if both r and t correctly follow through from an incorrect angle seen at base of an isosceles triangle, eg:*

*•
*

*r = 360 − 180 = 180*

*t = 180 − 60 = 120*

**1**

**[2]**

**M5.**          107

**[1]**

**M6.**          *x* = 

**[1]**

**M7.**          (a)     40°

**1**

(b)     25°

**1**

**[2]**

**M8.**          Award **TWO** marks for the correct answers *x* = 125 **AND** *y* = 145.

          If the answers are incorrect award **ONE** mark for either *x* = 125 **OR** *y* = 145
**OR** the sum of *x* and *y* being 270.

**up to 2**

**[2]**