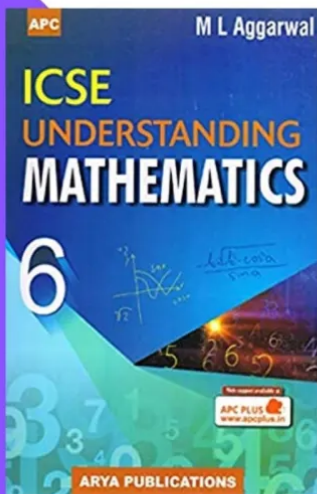


ML Aggarwal Solutions for Class 6 Maths

Chapter 11- Understanding Symmetrical Shapes



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ML Agrawal Solutions

CLASS 6 MATHS

Chapter 11:
Understanding
Symmetrical Shapes

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Chapter 11- Understanding Symmetrical Shapes

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ML Aggarwal Solutions for Class 6 Maths Chapter 11- Understanding Symmetrical Shapes

ML Aggarwal 6th Maths Chapter 11, Class 6 Maths Chapter 11 solutions

1. Why is it better to use a divider and a ruler than a ruler only, while measuring the length of a line segment?

Solution:-

The divider gives up accurate measurement whereas the ruler may cause difficulties in reading of length. Therefore, it is better to use a divider while measuring the length of a line segment.

2. In the given figure, compare the line segments with the help of a divider and fill in the blanks by using the symbol $>$, $=$ or $<$:

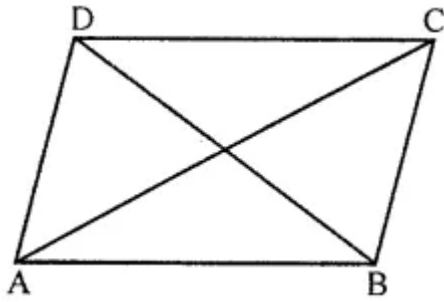
(i) AB CD

(ii) BC AB

(iii) AC BD

(iv) CD BD

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Solution:-

(i) From the figure,

$AB = CD$... [in parallelograms opposites are equal]

(ii) $BC < AB$

(iii) $AC > BD$

(iv) $CD < BD$

3. If A, B and C are collinear points such that $AB = 6$ cm, $BC = 4$ cm and $AC = 10$ cm, which one of them lies between the other two?

Solution:-

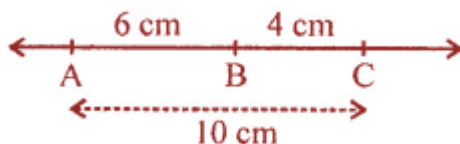
From the question it is given that,

A, B and C are collinear points

$AB = 6$ cm

$BC = 4$ cm

$AC = 10$ cm



Here, point B lies between the other two i.e A and C.

4. In the given figure, verify the following by measurement:

(i) $AB + BC = AC$

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(ii) $AC - BC = AB$



Solution:-

From the figure,

By using the divider and ruler we measured the given figure,

So,

$AB = 3 \text{ cm}$, $BC = 1.5 \text{ cm}$ and $AC = 4.5 \text{ cm}$

(i) $AB + BC = AC$

$3 \text{ cm} + 1.5 \text{ cm} = 4.5 \text{ cm}$

$4.5 \text{ cm} = 4.5 \text{ cm}$

(ii) $AC - BC = AB$

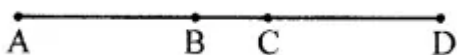
$4.5 \text{ cm} - 1.5 \text{ cm} = 3 \text{ cm}$

$3 \text{ cm} = 3 \text{ cm}$

5. In the given figure, verify by measurement that:

(i) $AC + BD = AD + BC$

(ii) $AB + CD = AD - BC$



Solution:-

From the figure,

By using the divider and ruler we measured the given figure,

So,

$AB = 1.8 \text{ cm}$, $BC = 0.8 \text{ cm}$, $BD = 2.7 \text{ cm}$, $CD = 1.9 \text{ cm}$, $AC = 2.6 \text{ cm}$ and $AD = 4.5 \text{ cm}$

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(i) $AC + BD = AD + BC$

Consider Left hand side (LHS) = $AC + BD$

$$= 2.6 \text{ cm} + 2.7 \text{ cm}$$

$$= 5.3 \text{ cm}$$

Now, Right hand side (RHS) = $AD + BC$

$$= 4.5 \text{ cm} + 0.8 \text{ cm}$$

$$= 5.3 \text{ cm}$$

By comparing LHS and RHS

$$\text{LHS} = \text{RHS}$$

$$5.3 \text{ cm} = 5.3 \text{ cm}$$

Therefore, $AC + BD = AD + BC$

(ii) $AB + CD = AD - BC$

Consider Left hand side (LHS) = $AB + CD$

$$= 1.8 \text{ cm} + 1.9 \text{ cm}$$

$$= 3.7 \text{ cm}$$

Now, Right hand side (RHS) = $AD - BC$

$$= 4.5 \text{ cm} - 0.8 \text{ cm}$$

$$= 3.7 \text{ cm}$$

By comparing LHS and RHS

$$\text{LHS} = \text{RHS}$$

$$3.7 \text{ cm} = 3.7 \text{ cm}$$

Therefore, $AB + CD = AD - BC$

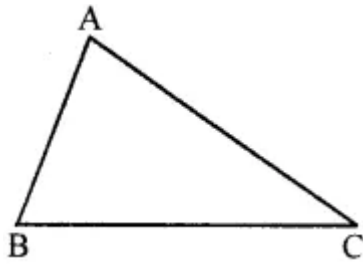
6. In the given figure, measure the lengths of the sides of the triangle ABC and verify:

(i) $AB + BC > AC$

(ii) $BC + AC > AB$

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(iii) $AC + AB > BC$



Solution:-

From the figure,

By using the divider and ruler we measured the given figure,

So,

$AB = 2.6 \text{ cm}$, $BC = 3.9 \text{ cm}$, $AC = 4 \text{ cm}$

(i) $AB + BC > AC$

$2.6 + 3.9 \text{ cm} > 4 \text{ cm}$

$6.5 \text{ cm} > 4 \text{ cm}$

(ii) $BC + AC > AB$

$3.9 + 4 \text{ cm} > 2.6 \text{ cm}$

$7.9 \text{ cm} > 2.6 \text{ cm}$

(iii) $AC + AB > BC$

$4 \text{ cm} + 2.6 \text{ cm} > 3.9 \text{ cm}$

$6.6 \text{ cm} > 3.9 \text{ cm}$



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- Chapter 5- Sets
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- Chapter 7- Decimals
- Chapter 8- Ratio and Proportion
- Chapter 9- Algebra
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About ML Aggarwal

M. L. Aggarwal, is an Indian mechanical engineer, educator. His achievements include research in solutions of industrial problems related to fatigue design. Recipient Best Paper award, Manipal Institute of Technology, 2004. Member of TSTE.

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