



Rosary School \ Marj Elhamam

Name : _____

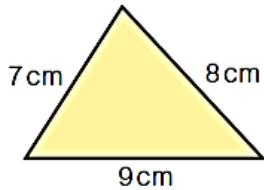
Date : / 10 / 2025

Subject: **Worksheet (2) / Constructions**

Grade : 8 ()

Constructing triangles

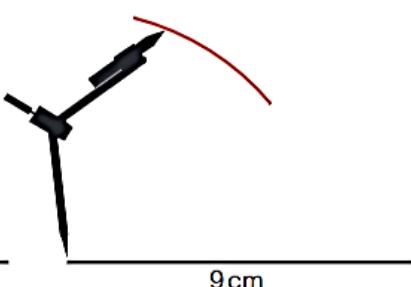
Follow these instructions to accurately construct a triangle with sides 7 cm, 8 cm and 9 cm.



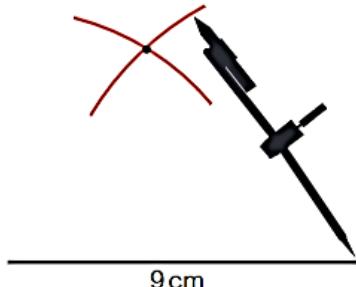
a Use a ruler to draw the 9cm side accurately.

9cm

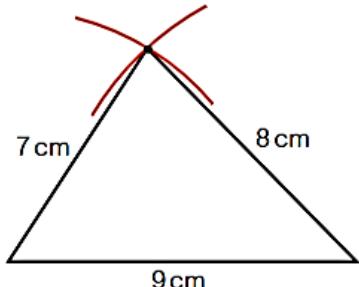
b The 7 cm side starts at the left-hand end of this line. Open your compasses to exactly 7 cm and draw an arc from the left-hand end of the line.



c Open your compasses to exactly 8cm and draw an arc from the other end.



d Use the point where the arcs cross to create the finished triangle.



Q3 page 75

Construct each triangle ABC.

- a** AB = 9cm, BC = 6cm and CA = 6cm
- b** AB = 7cm, BC = 3cm and CA = 8.5cm

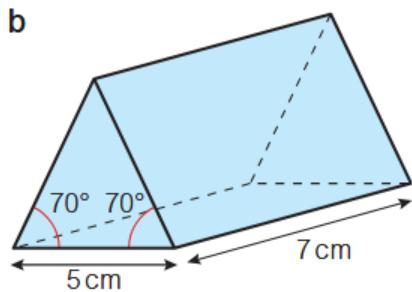
Q3 Strategy hint

Sketch the triangles first.
Remember not to rub out your construction marks.



Q2 page 74 (part b)

Use a ruler and protractor to accurately draw a net of each triangular prism.

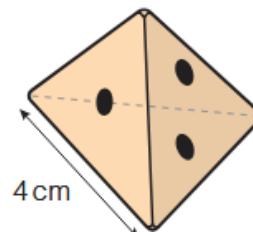
**Q2 Strategy hint**

Sketch the net first. Write all the lengths you know on your sketch. Mark the right angles.

Q6 page 76

Each face of a four-sided dice is an equilateral triangle.

Use a ruler and compasses to construct a net of the dice.



Constructing a perpendicular bisector

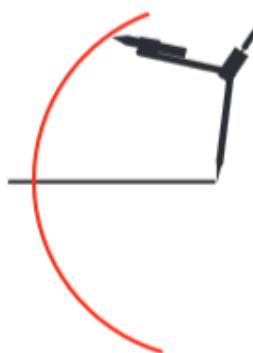
Draw a line 14 cm long.

Follow these instructions to construct the perpendicular bisector of this line.

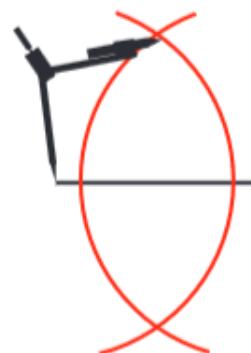
a Draw the line.
Open your compasses to more than half the length of the line.

14 cm

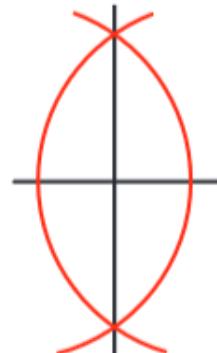
b Draw the first arc.



c Draw the second arc.



d Draw the perpendicular bisector.



Q4 page78

- a** Draw a straight line AB 8 cm long.
Construct its perpendicular bisector.
- b** Use a ruler and protractor to check that it bisects your line at a right angle.
- c** Mark any point P on your perpendicular bisector.
Measure its distance from A and from B.

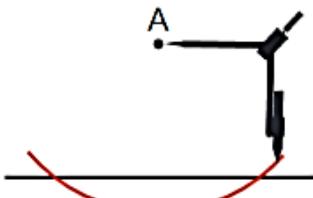
Q5 page78

In triangle ABC, AB = 5 cm, AC = 7 cm and BC = 7 cm.

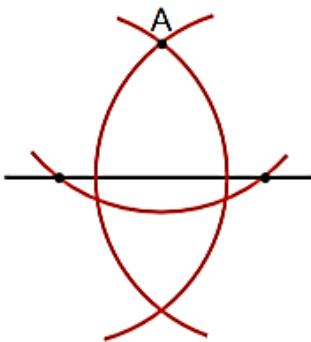
- a** Use a ruler and compasses to construct the triangle.
- b** What kind of triangle is ABC?
- c** Construct the perpendicular bisector of AB.
- d** Describe the shapes you have made.

Constructing a perpendicular line from a point

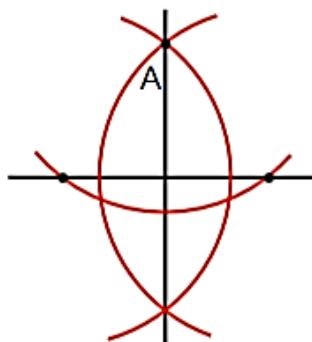
a Draw an arc from point A that intersects the line twice.



b Keep your compasses open the same distance. Draw an arc from each of the two points where the first arc crosses the line.



c Join the points where these two arcs intersect.



Q7 page83

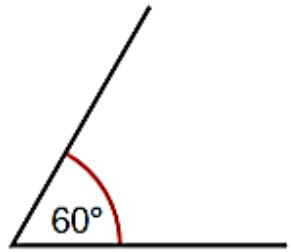
Use a ruler and compasses to construct a line perpendicular to line XY that passes through the point P.

• P

X ————— Y

Constructing a bisector of an angle

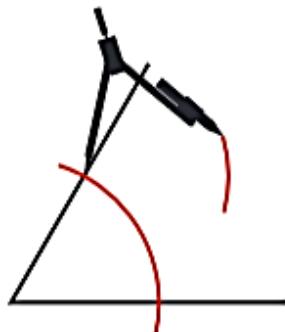
a Draw the angle.



b Draw an arc from the vertex of the angle.



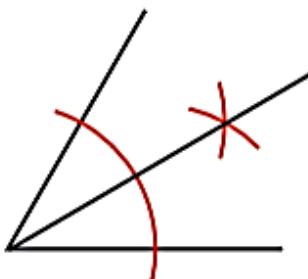
c Draw another arc between the two sides of the angle.



d Draw a second arc.



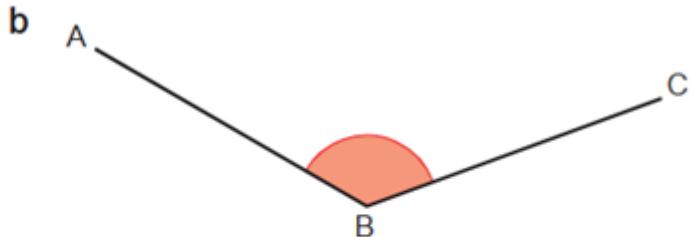
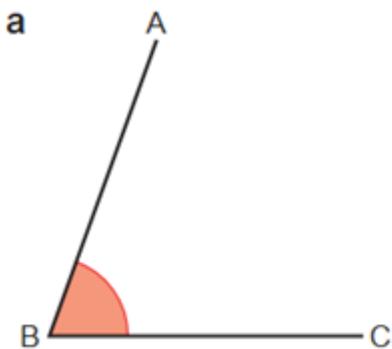
e Draw the angle bisector.



Q4 page 81

For each angle

- i bisect the angle using a ruler and compasses
- ii check your two smaller angles using a protractor.



Q4 page82

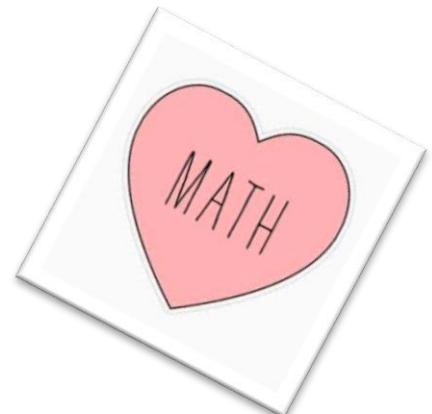
- a) Draw an angle of 120° using a protractor.
- b) Construct the angle bisector.

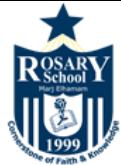
Q4 page 75

Draw an equilateral triangle with sides 7.5cm.

Check the angles using a protractor. What should they measure?

Teacher : Sally Serkisian





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Name : _____

Date : / 11 / 2025

Subject: **Worksheet (3)** Constructions

Grade : 8 ()

1. Constructing Triangles

Construct a triangle ABC where $AB = 3$ cm, $BC = 4$ cm, and $CA = 5$ cm.

2. Constructing a perpendicular bisector

Draw a line **AB = 8 cm**.

Use your compass and ruler to divide the line into **4 equal parts**.

Label all division points.

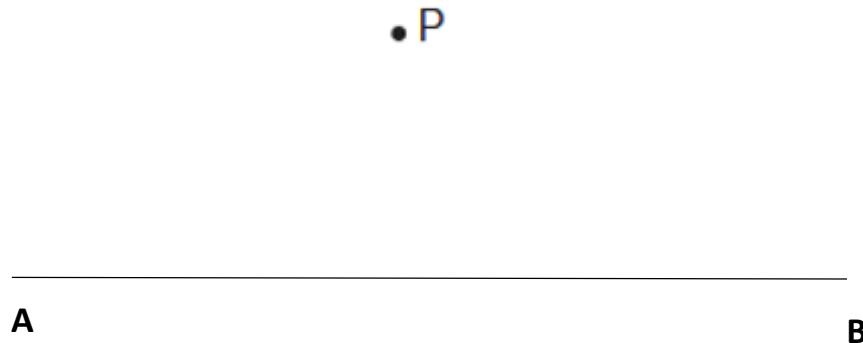
3. Drawing a Perpendicular line from a Point on a Line

Construct a perpendicular line from point C using a compass and ruler.
Label the perpendicular line as CD.



4. Constructing a perpendicular line from a point.

Use a ruler and compasses to construct a line perpendicular to line AB that passes through the point P



Teacher : Sally Serkisian



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Date: / 10 / 2025

Subject: Practice worksheet (1)

Grade: 8 ()

Expanding

Expand and simplify.

(a) $(x - 3)(4x - 1)$

(b) $(5z + 12)(5z - 2)$

(c) $(5y + 6)(y - 5)$

(d) $(5r + p)(r + p)$

(e) $(2t - 10)(t + 8)$

(f) $(3a + 2)(a - 1)$

(g) $(4x - 1)(4x - 1)$

(h) $(5z + 2)(5z - 2)$

(i) $(y + 5)(y - 5)$

(j) $(r + 5)(r + 5)$

(k) $(s - p)(s + p)$

(l) $(3b + 5)(b - 5)$

Teacher: Sally Serkisian





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Subject: Practice worksheet (2)

Grade: 8 ()

Factorising

Factorise

$$1. x^2 - 4x - 45$$

$$4. x^2 - 36$$

$$2. x^2 - 5x - 6$$

$$5. x^2 + 7x - 8$$

$$3. x^2 - 17 + 72$$

$$6. x^2 - 3x - 54$$

$$7. x^2 + 3x + 2$$

$$11. x^2 - 9x + 8$$

$$8. x^2 + 3x - 18$$

$$12. x^2 + x - 42$$

$$9. x^2 + 17x + 72$$

$$13. x^2 - x - 72$$

$$10. x^2 + 10x + 24$$

$$14. x^2 + 2x - 63$$

Teacher: Sally Serkisian





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Subject: Practice worksheet (3)

Grade: 8 ()

Solving quadratic equations

➤ Solve each quadratic equation by factorising.

a) $x^2 - 4x = 0$

b) $x^2 - 6 = 30$

c) $x^2 - 16 = 0$

d) $x^2 - 7x + 12 = 0$

e) $x^2 - 15x + 44 = 0$

f) $x^2 - 3x - 18 = 0$

$$g) \quad x^2 - 6x = 27$$

$$h) \quad x^2 + 3x = 10$$

$$i) \quad x^2 - x = 12$$

$$j) \quad x^2 - 6x = 16$$

$$k) \quad x^2 + 9x = -20$$

$$l) \quad x^2 + 12x = -36$$