Rosary School \ Marj Elhamam

Name: _____ Date: / 10 / 2025

Subject: Quadratics (Unit 3 + 4) Grade :8 ( )

(Past paper questions)

Unit (3)

Q1.

(b) What is the next term in the sequence

48, 44.5, 39, 31.5, 22, ...

.....

(1)

(c) Expand and simplify

$(x + 4)(x - 11)$

.....

(2)

(Total for question = 5 marks)

(QU17 LMA11/01, June 2023)

Q2.

(a) Expand and fully simplify

$$3(4h + 5) + 2h\,(6h - 7)$$

.....

(2)

(b) Solve

$$2m + 5 = 6m - 4$$

m = ...

(2)

(Total for question = 4 marks)
(**QU25 LMA11/01, June 2019**)

Q3.

Expand and simplify

(a) $-2m\,(5m - 8)$

.....

(2)

(b) $(y + 3)(y – 6)$

.....

(2)

(Total for question = 4 marks)
(QU25 LMA11/01, Oct 2023)

Q4.

(a) Expand and simplify

$$20w - 3w(4w + 5)$$

.....

(2)

(b) Solve the equation

$$\frac{7x-11}{5} = 9$$

x = ...

(2)

(**QU22 LMA11/01, Oct 2021**)

Q5.

(a) Expand and simplify

$$9k + 14 - 4\,(3k - 6)$$

.....

(2)

(b) Expand and simplify

$$(w + 4)\,(w - 5)$$

.....

(2)

(d) Solve

$$\frac{7x + 1}{5} = 2x + 5$$

.....

(3)

(e) Write in its simplest form

$$y^0$$

.....

(1)

(f) Write in its simplest form

$$\frac{z^4 \times z^3}{z^2}$$

.....

(2)

(Total for question = 13 marks)
(QU19 LMA11/01, June 2021)

Q6.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Factorise

$$x^2 - 7x + 6$$

$(x - 1)(x - 6)$ ☐ $(x + 1)(x + 6)$ ☐ $(x - 1)(x + 6)$ ☐ $(x + 1)(x - 6)$ ☐

(Total for question = 1 mark)
(QU13 LMA11/01, Oct 2022)

Q7.

(a) Factorise fully

$$40xy^2 - 16y^4$$

.....

(2)

(b) Find the value of n given that

$$\frac{x^9 \times x^n}{x^2} = x^3$$

n = ...

(2)

(Total for question = 4 marks)
(QU26 LMA11/01, June 2023)

Q8.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Factorise $x^2 - 64$

$x(x-8)$	$(x-8)^2$	$(x-8)(x+8)$	$x(x-64)$
☐	☐	☐	☐

(Total for question = 1 mark)
(QU07 LMA11/01, June 2019)

Q9.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Factorise

$$x^2 - 10x + 24$$

$(x-2)(x+12)$	$(x+2)(x-12)$	$(x-4)(x-6)$	$(x-4)(x+6)$
☐	☐	☐	☐

(Total for question = 1 mark)
(QU13 LMA11/01, June 2022)

Q10.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Find a solution to the equation

$$x^2 - 34 = 290$$

16	18	128	162
☐	☐	☐	☐

(Total for question = 1 mark)
(QU14 LMA11/01, Oct 2022)

Q11.

Find the *n*th term of the sequence

1, 8, 15, 22, 29, ...

.....

(Total for question = 2 marks)
(QU20 LMA11/01, June 2019)

Q12.

Find the *n*th term of the sequence

27, 23, 19, 15, 11, ...

.....

(Total for question = 2 marks)
(QU27 LMA11/01, Oct 2021)

Q13.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Fully simplify

$$6p - 3q + 4p + 9q$$

$10p + 6q$	$2p - 12q$	$2p + 6q$	$10p - 12q$
☐	☐	☐	☐

(Total for question = 1 mark)
(QU01 LMA11/01, Oct 2022)

Q14.

(a) The first term of a sequence is 11

The term-to-term rule is subtracting 4
What is the fifth term of the sequence?

.....

(1)

(b) A different sequence has the *n*th term $3n - 7$

Find the first four terms of this sequence.

....

(2)

(c) A boy writes a sequence with the nth term $8n - 1$

His sister writes a sequence that begins 4, 13, 22, 31, ...
What is the first three-digit number that will be in both of their sequences?

.....

(3)

(Total for question = 6 marks)
(**QU20 LMA11/01, June 2022**)

Q15.

(a) The first term of a sequence is 7

The term-to-term rule of the sequence is 'subtract 19'
What is the third term of this sequence?

.....

(1)

(b) The n^{th} term of a different sequence is $n^2 + 4n$

Write down the first three terms of this sequence.

.....

(2)

(c) Felix writes a sequence that starts with 4 and has the term-to-term rule 'add 7'

Oluwatoni writes a sequence with nth term 5n + 4

What is the smallest number that is in both of their sequences?

.....

(3)

(Total for question = 6 marks)

(**QU21 LMA11/01, Oct 2022**)

Q16.

(c) Find the *n*th term of the sequence

9, 17, 25, 33, 41, ...

(2)

(Total for question = 6 marks)

(**QU17 LMA11/01, June 2021**)

Q17.

(a) Find an expression for the *n*th term of the sequence

7, 17, 27, 37, 47, ...

.....

(2)

(b) What is the value of

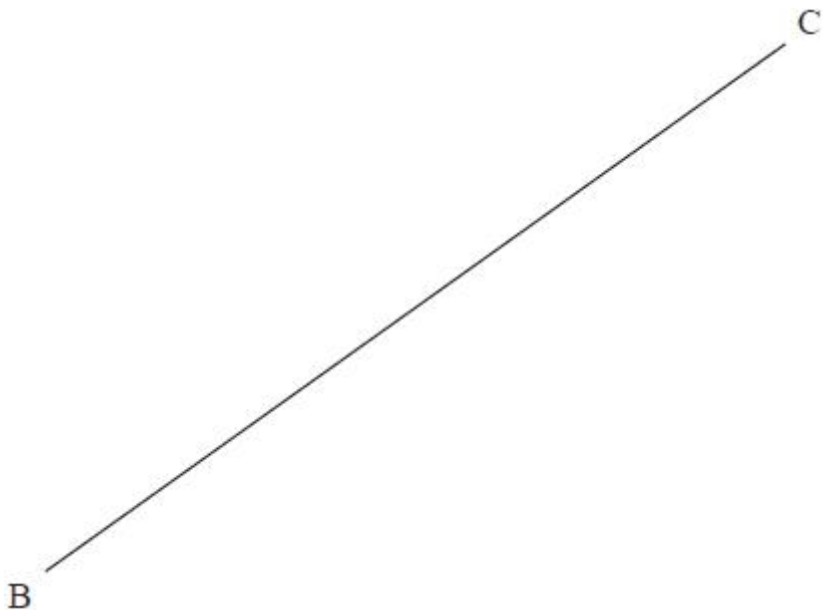
x^0

.....

(Total for question = 3 marks)
(**QU21 LMA11/01, Oct 2023**)

Unit (4)
Q1.

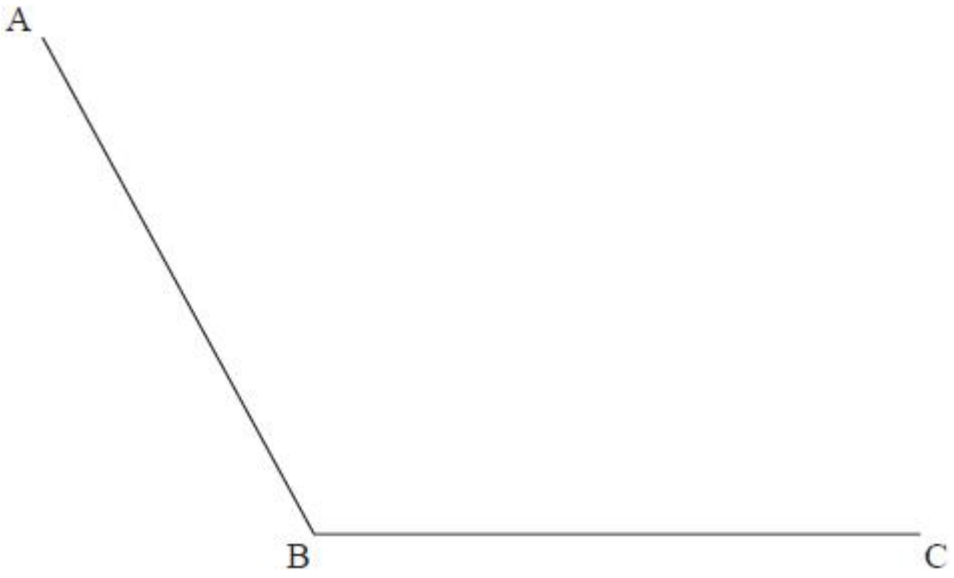
Use ruler and compasses to construct a perpendicular bisector of the line BC.
You must show all your construction lines.



(Total for question = 2 marks)
(**QU25 LMA11/01, Oct 2021**)

Q2.

Use ruler and compasses to construct the angle bisector of the angle ABC.
You must show all your construction lines.



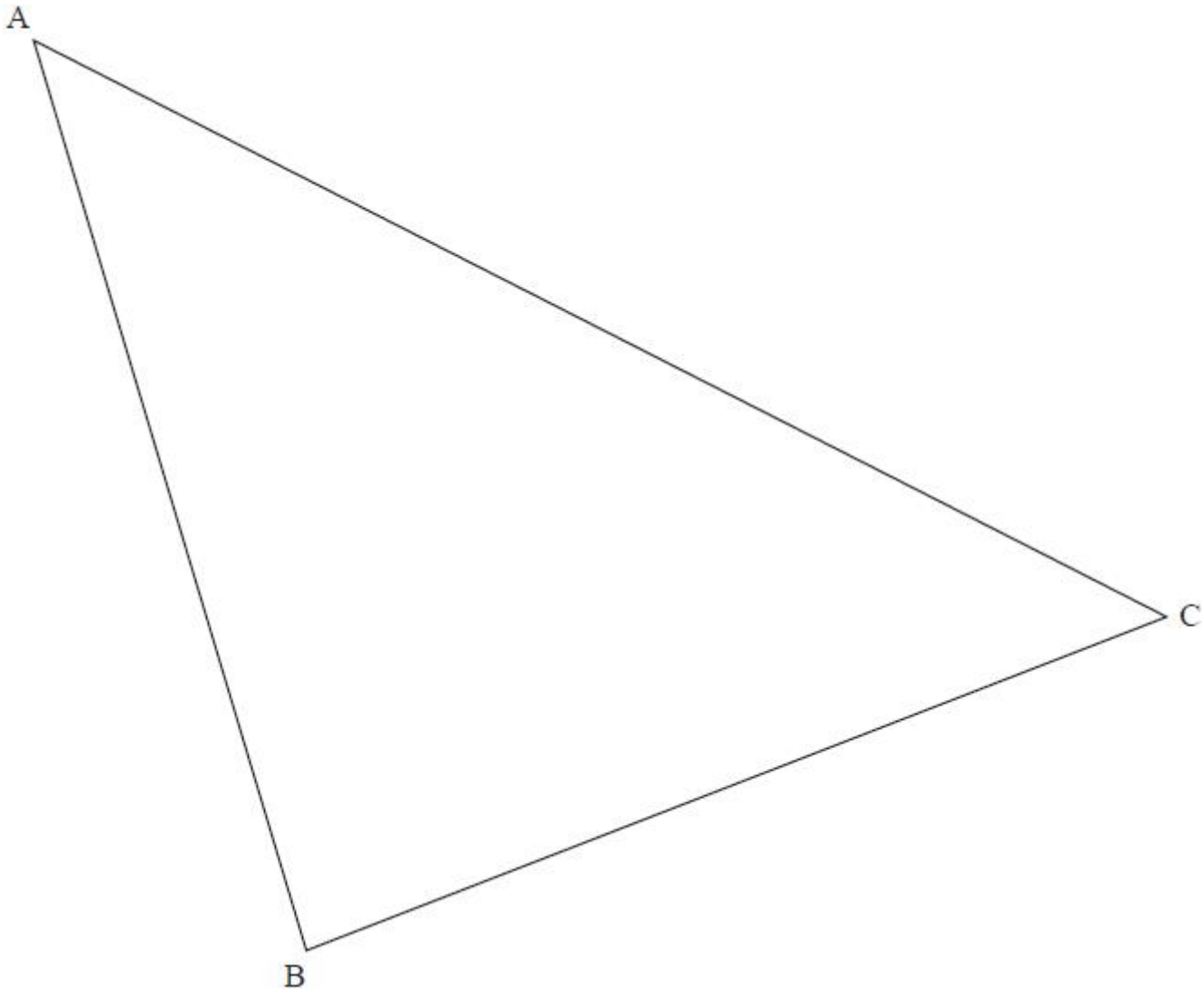
(Total for question = 2 marks)
(**QU27 LMA11/01, June 2021**)

Q3.

The diagram shows triangle ABC.

Use ruler and compasses to construct the perpendicular bisector of BC.

You must show clearly all your construction arcs.

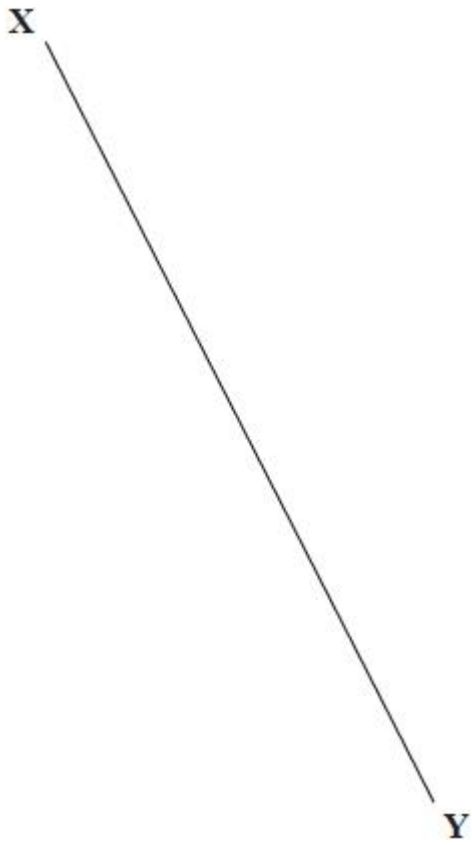


(Total for question = 2 marks)

(**QU30 LMA11/01, Oct 2023**)

Q4.

Use ruler and compasses to construct the perpendicular bisector of the line XY.
You must show all your construction lines.



(Total for question = 2 marks)

(**QU24 LMA11/01, June 2022**)

Q5.

ABC is a triangle.

AC = 6 cm and BC = 8 cm.

Use a ruler and compasses to construct the triangle ABC with AB as its base.

You must show all construction lines.

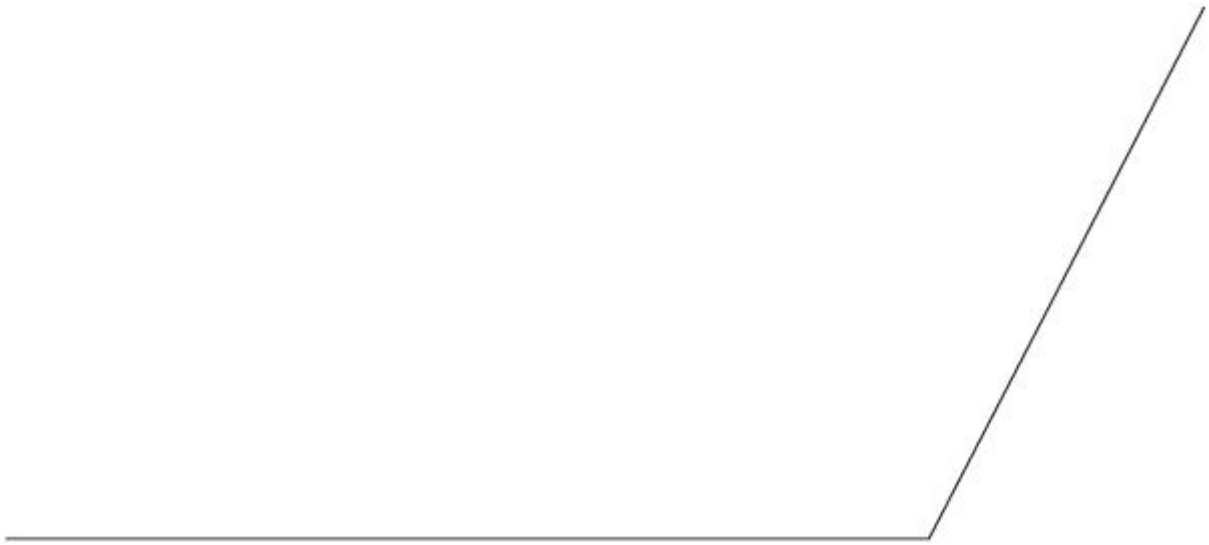
(Total for question = 2 marks)

(**QU23 LMA11/01, June 2023**)

Q6.

Using ruler and compasses, construct the bisector of the angle.

You must show all your construction lines.



(Total for question = 2 marks)

(**QU22 LMA11/01, Oct 2022**)