Year 9

Practice Test
Topics: 1 - 6

Mark Scheme and revision:
www.addvancemaths.com/year9/

Name: _____

Teacher: _____

Score: _____

Instructions:
- Use a black or blue ballpoint pen.
- Answer all the questions in the spaces provided.
- You will need a ruler, protractor, pencil, and compass

- **Information:**
- The marks for each question are shown in brackets.
- The total mark available for this exam is 39 minutes.

- **Advice** :
- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

1. Factorise the following:

(a) $y^2 - 9y + 14$

.... ✏ 2

(b) $x^2 + 5x - 24$

.... ✏ 2

(c) $x^2 - 11x + 30$

.... ✏ 2

(d) $y^2 - 9w^2$

.... ✏ 2

2. Solve the following by showing all your working. Give you answer as a simplified fraction where appropriate:

(a) $\dfrac{4x+2}{3} = \dfrac{x+5}{4}$

.... ✏ 4

(b) $\dfrac{6x+2}{3} = \dfrac{4x+8}{5}$

.... ✏ 5

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3. Solve the following:

a) 64% of 910

b) The price of a TV has been decreased by 22%. ············ 🖉
When the original price is 60,000 AED, what is the
new price?

1

············· 🖉

2

c) Amira invested 5000 AED in a savings account
that pays a constant rate of compound interest. After
two years, the account balance was 5940.50 AED.
Work out the annual interest rate as a percentage
and then calculate how much money will be in the
account after three years.

············· 🖉 3

4. Make x the subject of the following formulas.

a) $v = \frac{x}{3} + 7$

.... ✏ 2

b) $a = 5(b - x)$

.... ✏ 3

c) $E = \frac{2}{x+3}$

.... ✏ 3

5. Abigail is measuring the height of her sunflower plants in cm.

Height (cm)	Frequency
$120 < h \leq 130$	5
$130 < h \leq 140$	8
$140 < h \leq 150$	12
$150 < h \leq 160$	20
$160 < h \leq 180$	15

(a) What is the modal class?
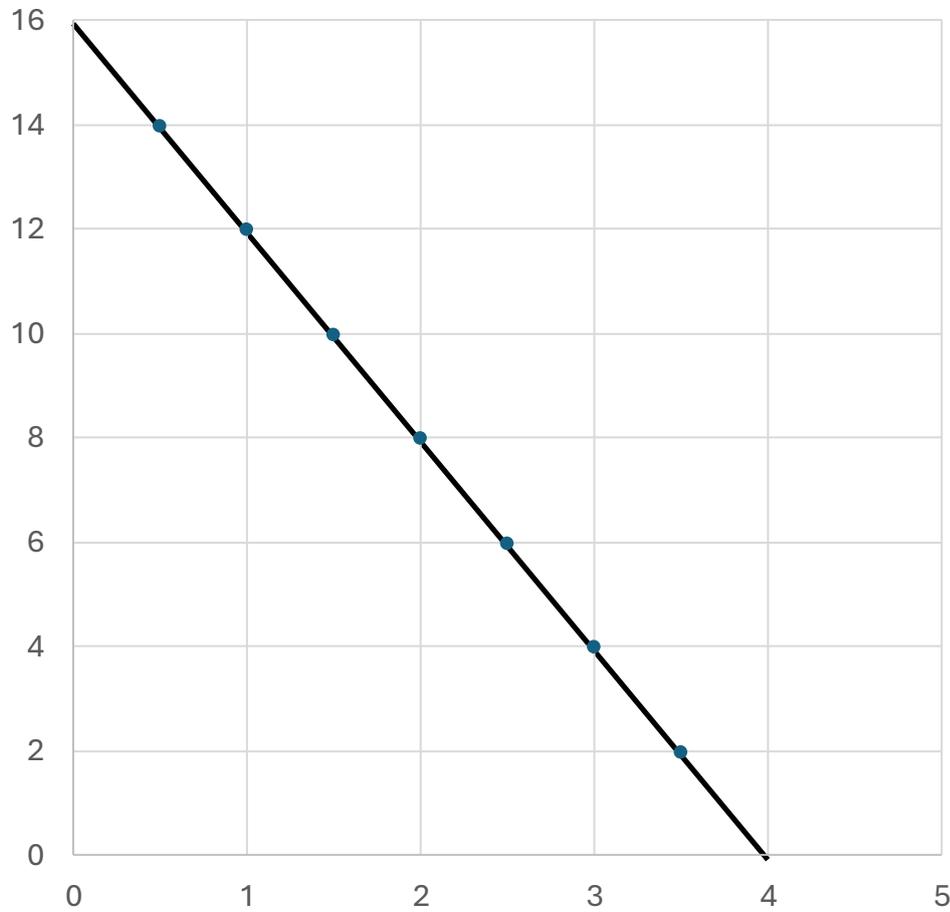
.... 1

(b) What is the median height?

.... 1

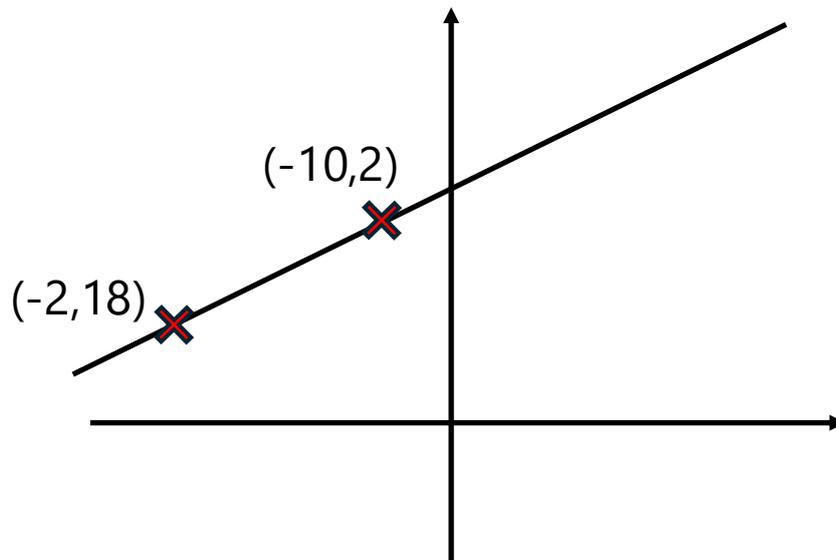(c) Estimate the mean height.

.... 3

6. A straight line is shown on the grid.

Find the equation of the line.

.... ✏ 3

7. A line passes through the points (-2,18) and (-10,2).

(a) Find the equation of the line.

..............✏ 4

(b) Find the midpoint of points D and E.

..............✏ 2

8.   a) Find the midpoint of the points: (30,46) and (32, 62)

   b) (-2,5) and (6,92)

.... ✏ 1

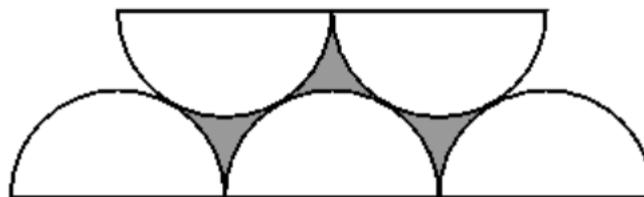............. ✏ 1

UKMT Question : you do not need to show your working.

The diagram shows five touching semicircles, each with radius 2.

What is the length of the perimeter of the shaded shape?

A 5π B 6π C 7π D 8π E 9π

.... ✏ 3

Self-reflection

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How did you revise for the exam? *(tick all that you did)*

Reading class notes ◯   Online practice ◯   Doing practice question ◯

◯ Getting help from your teacher   ◯ Recapping the previous exam

Study group (with friends ◯   Reading textbooks ◯   Watching videos ◯

Were these revision techniques useful? *(circle your answer)*

😎 Yes   🙄 A bit   😌 No

How could you revise more effectively next time?

_____

_____

List three topics from this test that you are good at, and three that need more work.

1.)   5.)

2.)   5.)

3.)   6.)

"Failure is the stepping stone to success"

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