Term 1 Assessment 2025 – 2026

Revision Exercise (Set 1)

Grade:	G9	Name:	
Subject:	Mathematics	Class:	( )
Paper:	II	Group No.:	
Date:		Marks:	/ 30
Time Allowed:	50 minutes	Parent's Signature	

INSTRUCTIONS

(1) There are 30 questions in the paper. You should check that all the questions are there. Look for the words '**END OF PAPER**' after the last question.

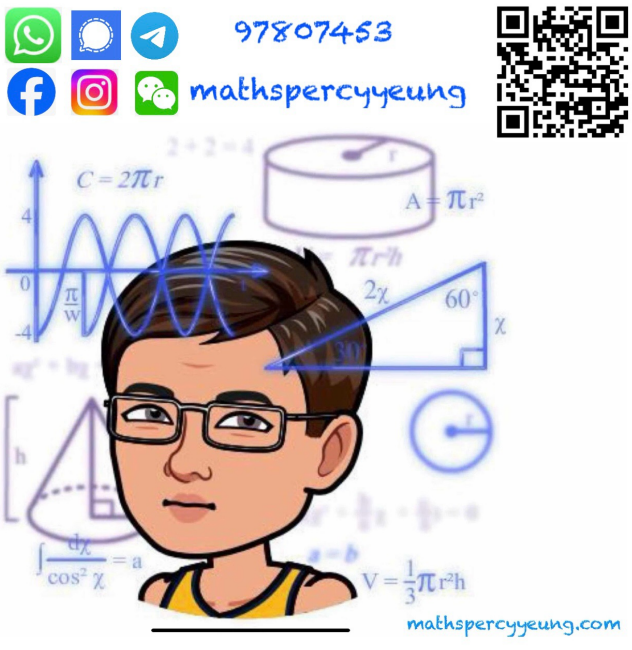
(2) Each question carries 1 mark.

(3) **ANSWER ALL QUESTIONS**. You are advised to use an HB pencil to mark all the answers on the MC Answer Sheet, so that wrong marks can be completely erased with a clean rubber.

(4) You should mark only **ONE** answer for each question. If you mark more than one answer, you will receive **NO MARK** for that question.

(5) No mark will be deducted for the wrong answers.

(6) Use of an HKEAA approved calculator is allowed.



The diagrams in this paper are not necessarily drawn to scale.

Choose the best answer for each question.

1. Which of the following has the factor $3x + 1$?

   A. $3x^2 + 10x + 3$

   B. $3x^2 - 10x + 3$

   C. $3x^2 + 5x + 2$

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

2. $48 + x^2 - 14x =$

   A. $(x-12)(x+4)$.

   B. $(x-12)(x-4)$.

   C. $(x-6)(x+8)$.

   D. $(x-6)(x-8)$.

3. $-24x^2 - 38x + 42 =$

   A. $-2(6x+7)(2x-3)$.

   B. $-2(6x-7)(2x+3)$.

   C. $-2(3x+7)(4x-3)$.

   D. $-2(3x-7)(4x+3)$.

4. Factorize $a^2-2a-8+2am+4m$.

A. $(a-4)(a+2+m)$

B. $(a-4)(a+2+2m)$

C. $(a+2)(a-4+m)$

D. $(a+2)(a-4+2m)$

5. $8-(x+5)(x+7)=$

A. $-(x+3)(x+9)$.

B. $-(x-3)(x-9)$.

C. $(x+3)(x-9)$.

D. $(x-3)(x+9)$.

6. If $-3x^2-19xy+ay^2\equiv(x+7y)(by-3x)$, then

A. $a=14, b=-2$.

B. $a=-14, b=2$.

C. $a=14, b=2$.

D. $a=-14, b=-2$.

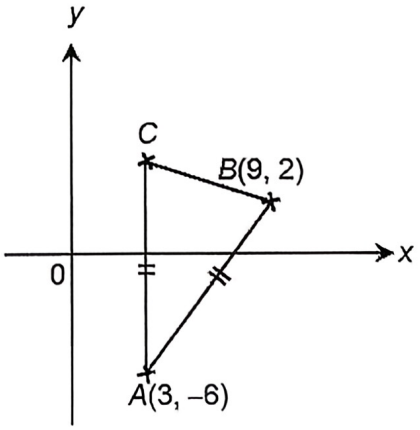
7. The figure shows an isosceles triangle ABC, where $AB = AC$ and C is vertically above A. Find the coordinates of C.

A. (2, –6)

B. (3, 4)

C. (3, 6)

D. (3, 10)

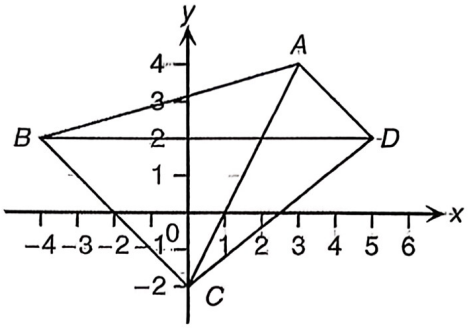


8. Referring to the figure, which of the following statement(s) is/are true?

I. The slope of line segment AB is positive.

II. The slope of line segment AC is negative.

III. The slope of line segment BD is undefined.



A. I only

B. II only

C. I and III only

D. II and III only

9. A straight line passing through $A(4, 0)$ and $B(3, -3)$ cuts the y-axis at C. Find the coordinates of C.

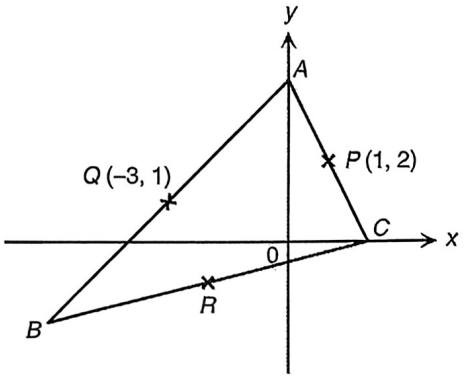
A. $(-12, 0)$

B. $(-11, 0)$

C. $(0, -11)$

D. $(0, -12)$

10. In the figure, A and C are the points on the y-axis and the x-axis respectively. $P(1, 2)$ and $Q(-3, 1)$ are the mid-points of AC and AB respectively. Find the coordinates of the mid-point R of BC.



A. $(-1, -2)$

B. $(-2, -1)$

C. $(-2, -4)$

D. $(-4, -2)$

11. Which of the following points is collinear with $A(5, 2)$ and $B(4, 1)$?

A. $P(0, 1)$

B. $Q(5, 0)$

C. $R(-4, -1)$

D. $S(1, -2)$

12. The straight line L_1 passes through $A(x, 5)$ while the straight line L_2 passes through $B(2, y)$. The straight line L_3 cuts L_1 and L_2 at $C(-3, 1)$ and $D(0, 4)$ respectively. If $L_2 \perp L_3$ and $L_1 \,//\, L_2$, find the values of x and y.

A. $x=-7, y=2$

B. $x=-1, y=2$

C. $x=1, y=2$

D. $x=1, y=12$

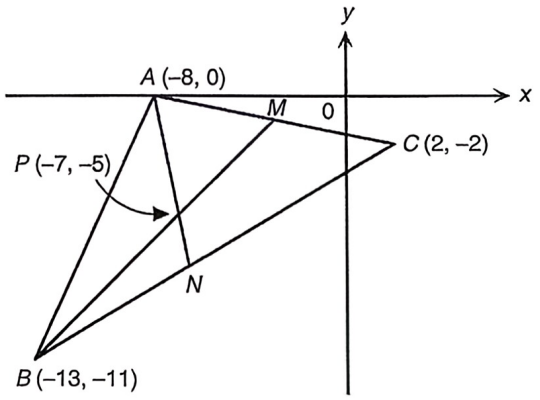
13. In the figure, $A(-8, 0)$, $B(-13, -11)$ and $C(2, -2)$ are the vertices of a triangle. M is the mid-point of AC and N is a point on BC. AN cuts BM at $P(-7, -5)$. Find $BP : PM$.

A. 2 : 1

B. 1 : 2

C. 3 : 2

D. 2 : 3



14. If the upper base and lower base of a trapezium both increase by 60%, by what percentage should its height decrease to keep the area unchanged?

A. 36%

B. 37.5%

C. 62.5%

D. 64%

15. The revenue of a restaurant was $300 000 in January. Its revenue increased at a rate of 10% per month from January to March, and then decreased at a rate of 20% per month from March to June. Find the revenue of the restaurant in June.

A. $185 856

B. $200 653

C. $242 000

D. $263 553

16. The present price of a photocopier is $2 551.5. If it depreciates at a constant rate of 10% per year, find the price of the photocopier 3 years ago.

A. $3 889

B. $3 500

C. $2 835

D. $1 860

17. If the interest rate is 10% p.a. on simple interest, how long does it take for the amount to become twice of the principal?

    A. 5 years

    B. 10 years

    C. 15 years

    D. 20 years

18. Mr. Ho deposits $150 000 in a bank at an interest rate of 6% p.a. compounded monthly. Find the compound interest he will receive after 2 years, correct to the nearest $10.

    A. $18 000

    B. $18 540

    C. $18 970

    D. $19 070

19. A principal of $3 000 is deposited at an interest rate of 10% p.a. for 5 years. Find the difference in the interest obtained between that on simple interest and that compounded yearly.

    A. $331.53

    B. $1 500

    C. $1 831.53

    D. $3 331.53

20. The table below shows the test scores of S2A students in Mathematics. Find the mean test score in Mathematics.

Score	51 – 60	61 – 70	71 – 80	81 – 90	91 – 100
Frequency	1	3	8	26	2

A. 77.25

B. 81.25

C. 81.75

D. 86.25

21. The following table shows the distribution of the capacities of the bottles of a group of students. Find the median capacity of the bottles.

Capacity (mL)	350	400	450	500	550	600 or above
Number of Students	12	20	15	32	16	5

A. 450 mL

B. 475 mL

C. 500 mL

D. 525 mL

22. If the mode of eight numbers 4, 8, 1, 6, 8, 9, a and b is 4, then the median of these numbers is

A. 4.

B. 5.

C. 5.5.

D. 6.

23. Consider the following 13 integers:

$$3, 3, 4, 4, 4, 4, 6, 8, 8, 9, 9, 10, x$$

Let p, q and r be the mean, the median and the mode of the above integers respectively. If $4 \leq x \leq 6$, which of the following must be true?

I. $p > q$

II. $p > r$

III. $q > r$

A. I only

B. II only

C. I and III only

D. II and III only

24. The following table shows the test marks of Sandy in 5 tests.

Marks	59	64	69	74	80
Weight	0.3	x	0.3	0.2	0.1

If the weighted mean mark of Sandy in these 5 tests is 67, find the value of x.

A. 0.1

B. 0.2

C. 0.3

D. 0.4

25. If the mean of a, b, c, p and q is m, what is the mean of $10a - 3$, $10b - 3$, $10c - 3$, $10p - 3$ and $10q - 3$?

A. m

B. $10m$

C. $10m - 3$

D. Cannot be determined

26. $\dfrac{\cos 30° \sin 45°}{\tan 30°} =$

A. $\dfrac{3\sqrt{2}}{4}$.

B. $\dfrac{1}{4}$.

C. $\dfrac{\sqrt{3}}{2}$.

D. $\dfrac{\sqrt{3}}{4}$.

27. If θ is an acute angle and $6\sin\theta - 3\sqrt{3} = 0$, then $\theta =$

A. 15°.

B. 30°.

C. 45°.

D. 60°.

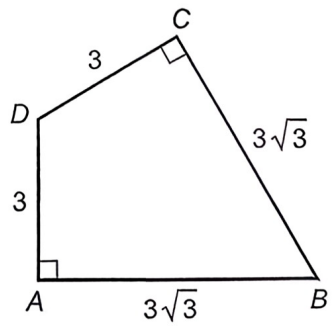
28. Find $\angle ADC$ in the figure.

A. 75°

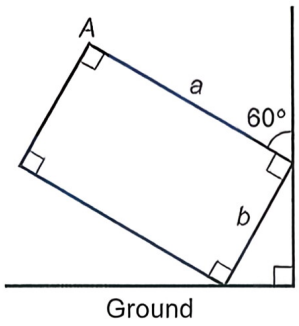
B. 90°

C. 105°

D. 120°



29. In the figure, find the perpendicular distance from the point A to the ground.



A. $\frac{1}{2}a+\frac{\sqrt{3}}{2}b$

B. $\frac{\sqrt{3}}{2}a+\frac{1}{2}b$

C. $\frac{\sqrt{2}}{2}a+\frac{\sqrt{2}}{2}b$

D. $\frac{1}{2}a+\frac{1}{2}b$

30. Given that $\sin\theta=\frac{2}{a}$, where θ is an acute angle, express $\cos\theta$ in terms of a.

A. $\frac{a}{2}$

B. $\sqrt{a^2-4}$

C. $\frac{\sqrt{a^2-4}}{a}$

D. $\frac{\sqrt{a^2-4}}{2}$

END OF PAPER