Chapter 1 Rational Numbers

1 Bulatkan integer.
Circle the integer.

[4 markah/4 *marks*]

Jawapan/*Answer*:

-2.4	0.4	-7	$\frac{2}{5}$
0	59	0.25	-61

2 Isikan nombor yang sesuai ke dalam $\square$.
Fill in the suitable number into the $\square$.

[3 markah/3 *marks*]

Jawapan/*Answer*:

(a) $4(9+4) = 4 \times \square + 4 \times 4$

(b) $6 \times 7 \times 8 = 8 \times \square \times 7$

(c) $5 \times 399 = 5 \times (\square - 1)$

3 Tentukan sama ada nombor yang berikut ialah nombor nisbah atau bukan.
Determine whether each of the following numbers is a ratio number.

[4 markah/4 *marks*]

Jawapan/*Answer*:

	Nombor ***Number***	**Ya/Bukan** ***Yes/No***
(a)	$3\frac{1}{8}$	
(b)	0.03	
(c)	$1.414213562\ldots$	
(d)	-9	

4 Susun perpuluhan yang berikut mengikut tertib menaik.
Arrange the following decimals in ascending order.

$1.125, -3.905, 2.514, -1.008, 2.367$

[2 markah/2 *marks*]

5 Isikan simbol '<' atau '>' ke dalam $\square$.
Fill in the $\square$ *with the symbol '<' or '>'.*

[5 markah/5 *marks*

Jawapan/*Answer*:

(a) $12 \ \square \ 21$

(b) $\frac{1}{4} \ \square \ \frac{1}{8}$

(c) $-6 \ \square \ 9$

(d) $-0.7 \ \square \ -0.07$

(e) $-\frac{3}{5} \ \square \ -\frac{3}{4}$

6 Tandakan (✓) untuk pernyataan yang betul dan (×) pada pernyataan yang salah.
Mark (✓) for the correct statement and (×) for the incorrect statement.

[5 markah/5 *marks*]

Jawapan/*Answer*:

(a) $a \times b = b \times a$ ialah Hukum Kalis Tukar Tertib. $\square$
$a \times b = b \times a$ is Commutative Law.

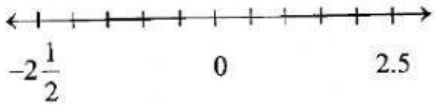
(b) $a \times (b - c) = a \times b - a \times c$ ialah Hukum Kalis Agihan. $\square$
$a \times (b - c) = a \times b - a \times c$ is Distributive Law.

(c) $a + b = b + a$ ialah Hukum Kalis Sekutuan. $\square$
$a + b = b + a$ is Associative Law.

(d) $a \times 0 = 0$ ialah Hukum Identiti. $\square$
$a \times 0 = 0$ is Identity Law.

(e) $(a \times b) \times c = a \times b \times c$ ialah Hukum Kalis Agihan. $\square$
$(a \times b) \times c = a \times b \times c$ is Distributive Law.

7 Rajah di bawah menunjukkan suatu garis nombor.
The diagram shows a number line.



Nyatakan integer positif dan integer negatif yang terdapat pada garis nombor itu.
State the positive integer and the negative integer on the number line.

[2 markah/2 *marks*]

Jawapan/*Answer*:

Integer positif *Positive integer*	
Integer negatif *Negative integer*	

Chapter 2 Factors and Multiples

1 Tentukan sama ada nombor yang berikut ialah faktor bagi 39 atau bukan.
Determine whether each of the following numbers is a factor of 39.

[3 markah/3 *marks*]

Jawapan/*Answer*:

	Nombor *Number*	Ya/Bukan *Yes/No*
(a)	3	
(b)	6	
(c)	13	

2 Lengkapkan langkah-langkah di bawah untuk mencari FSTB bagi 60, 72 dan 108 dengan mengisikan petak-petak kosong dengan nombor yang sesuai.
Complete the steps to find the FSTB for 60, 72 *and* 108 *by filling the empty squares with the appropriate numbers.*

[4 markah/4 *marks*]

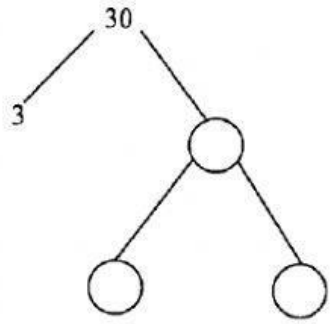
Jawapan/*Answer*:

□	60 ,	72 ,	108
2	30 ,	36 ,	54
□	15 ,	□ ,	27
	5 ,	6 ,	□

3 (a) Lengkapkan pokok faktor berikut.
Complete the following factor tree.

[2 markah/2 *marks*]

Jawapan/*Answer*:



4 (a) Bulatkan semua faktor perdana bagi 66.
Circle all the prime factors of 66.

[3 markah/3 *marks*]

Jawapan/*Answer*:

1	2	3	4
5	6	7	9
11	22	33	66

5 Tandakan (✓) bagi nombor perdana.
Mark (✓) for the prime numbers.

[4 markah/ *marks*]

Jawapan/ *Answer*:

(a)	31	
(b)	57	
(c)	69	
(d)	83	
(e)	89	
(f)	97	

6 Padankan pasangan nombor berikut dengan faktor sepunya terbesar yang betul.
Match the following pair of numbers with their correct highest common factor.

Jawapan/ *Answer*: [3 markah/ *marks*]

32 dan 68 *32 and 68*	• •	2
12 dan 74 *12 and 74*	• •	4
48 dan 56 *48 and 56*	• •	8
104 dan 143 *104 and 143*	• •	13

7 Tandakan (✓) pada pernyataan yang betul.
Tick (✓) for the correct statement.

[4 markah/ *marks*]

Jawapan/ *Answer*:

(a)	54 ialah gandaan sepunya bagi 6 dan 9 *54 is a common multiple of 6 and 9*	
(b)	80 ialah gandaan sepunya bagi 5 dan 11 *80 is a common multiple of 5 and 11*	
(c)	144 ialah gandaan sepunya bagi 2, 3 dan 12 *144 is a common multiple of 2, 3 and 12*	
(d)	122 ialah gandaan sepunya bagi 5, 8 dan 12 *122 is a common multiple of 5, 8 and 12*	

8 Tandakan (✓) pada pernyataan yang betul.
Tick (✓) for the correct statement.

[4 markah/ *marks*]

Jawapan/ *Answer*:

(a)	Nombor perdana yang paling kecil ialah 1 *The lowest prime number is 1*	
(b)	2 ialah nombor perdana *2 is a prime number*	
(c)	Semua nombor perdana ialah nombor ganjil *All prime numbers are odd number*	
(d)	Terdapat 4 nombor perdana antara 0 hingga 10 *There are 4 prime numbers between 0 to 10*	

Chapter 3
Squares, Square Roots, Cubes and Cube Roots

1 (a) Tandakan (✓) untuk jawapan yang betul dan (×) pada jawapan yang salah.
Mark (✓) for the correct answer and (×) for the incorrect answer.

[3 markah/3 *marks*]

Jawapan/*Answer*:

(i) $5^2 = 5 \times 2$ ☐

(ii) $5^2 = 5 \times 5$ ☐

(iii) $5^2 = 5 + 5$ ☐

(b) Bulatkan kuasa dua sempurna.
Circle the perfect square.

[1 markah/1 *mark*]

Jawapan/*Answer*:

122	66	−169	8	7	100

2 Padankan jawapan yang betul.
Match the correct answers.

[4 markah/4 *marks*]

Jawapan/*Answer*:

(a)	$(-5)^2$	4
(b)	$\sqrt[3]{81}$	9
(c)	4^3	64
(d)	$\sqrt[3]{64}$	25
		−25

3 Tandakan (✓) untuk pernyataan yang betul dan (×) pada pernyataan yang salah.
Mark (✓) for the correct statement and (×) for the incorrect statement.

[3 markah/3 *marks*]

Jawapan/*Answer*:

(a) 27 ialah kuasa tiga sempurna.
27 is a perfect cube. ☐

(b) −216 ialah kuasa tiga bagi 6.
−216 is the cube of 6. ☐

(c) 0.1 ialah punca kuasa tiga bagi 0.01.
0.1 is the cube root of 0.01. ☐

4 Tandakan (✓) bagi pernyataan yang betul dan (×) bagi pernyataan yang salah.
Mark (✓) for the correct statement and (×) for the incorrect statement.

[3 markah/3 *marks*]

Jawapan/*Answer*:

(a) $3^2 < 3.8^2 < 4^2$ ( )

(b) $20^3 < 20.2^3 < 21^3$ ( )

(c) $(-7)^3 < (-7.2)^3 < (-8)^3$ ( )

5 Tentukan sama ada nombor berikut ialah kuasa dua sempurna atau bukan.
Determine whether the following number is a perfect square or not.

Jawapan/ *Answer*: [4 markah/ *marks*]

(*a*)	49	
(*b*)	100	
(*c*)	343	
(*d*)	255	

6 Padankan setiap yang berikut dengan nilai yang betul.
Match each of the following with its value correctly.

[4 markah/ *marks*]

Jawapan/ *Answer*:

$\sqrt{144}$	−25
$(-5)^2$	−4
$\sqrt{4^2}$	4
$\sqrt[3]{-64}$	12
	25

7 *Mark (✓) for the correct one and (×) for the wrong one.*

[2 markah/ *marks*]

Jawapan/ *Answer*:

(i)	$\sqrt{8^2} = 8^2$	
(ii)	$64 = \sqrt{64 \times 64}$	

Chapter 4 Ratios, Rates and Proportions

1 Padankan pasangan nisbah yang setara.
Match each pair of equivalent ratios.

[3 markah/3 *marks*]

Jawapan/*Answer*:

(a) 9 : 33

(b) 12 : 16

(c) 0.4 : 0.6

$\frac{1}{2} : \frac{11}{16}$

2 : 3

6 : 4

3 : 4

$\frac{1}{2} : \frac{2}{5}$

2 Nisbah yang manakah setara dengan 8 : 15? Tandakan (✓) untuk jawapan yang betul dan (×) pada jawapan yang salah.
Which of the ratios is equivalent to 8 : 15? *Mark* (✓) *for the correct answer and* (×) *for the incorrect answer.*

[3 markah/3 *marks*]

Jawapan/*Answer*:

(a) $\frac{1}{2} : \frac{1}{3}$ ☐

(b) $2 : 3\frac{3}{4}$ ☐

(c) $\frac{4}{3} : 1\frac{2}{5}$ ☐

3 Bandingkan nisbah berikut menggunakan '<', '>' atau '='.
Compare the following ratios using '<', '>' or '='.

[3 markah/3 *marks*]

Jawapan/*Answer*:

(a) 4 : 10 ☐ 2 : 5

(b) 1: 2 ☐ 1.2 : 2

(c) 3 : 2 ☐ 1 : 2

4 Diberi bahawa $p : q = 3 : 4$ dan $q : r = 2 : 1$. Pada ruang jawapan, tandakan (✓) bagi pernyataan yang betul dan (×) bagi bagi pernyataan yang tidak betul.
It is given that $p : q = 3 : 4$ *and* $q : r = 2 : 1$. *In the answer space, mark* (✓) *for the correct statement and* (×) *for the incorrect statement.*

[3 markah/3 *marks*]

Jawapan/*Answer*:

(a) $q : p = 4 : 3$ ( )
(b) $p : r = 3 : 1$ ( )
(c) $p : q : r = 3 : 4 : 2$ ( )

5 Bulatkan nisbah yang dalam sebutan terendah.
Circle the ratio which is in the lowest terms.

[4 markah/ *marks*]

Jawapan/ *Answer*:

3 : 49 : 13	24 : 12 : 6	25 : 64 : 11
12 : 15 : 18	7 : 9 : 21	28 : 24 : 32
9 : 21 : 15	15 : 18 : 20	45 : 10 : 35

6 Tandakan (✓) bagi nisbah setara dan (✗) bagi nisbah tidak setara.
Mark (✓) for the equivalent ratio and (✗) for the inequivalent ratio.

Jawapan/ *Answer*: [4 markah/ *marks*]

(*a*)	2 : 6 : 10	3 : 9 : 15	
(*b*)	14 : 16 : 18	8 : 10 : 12	
(*c*)	81 : 49 : 36	9 : 7 : 6	
(*d*)	32 : 56 : 64	8 : 14 : 16	

7 Padankan nisbah kepada nisbah setaranya.
Match the ratio to its equivalent ratio.

[4 markah/ *marks*]

Jawapan/ *Answer*:

48 : 64	•	•	72 : 126
4 : 7	•	•	51 : 63
35 : 45	•	•	6 : 8
34 : 42	•	•	14 : 18

Chapter 5 Algebraic Expressions

1 *Determine whether the variable x in each of the following situations has a fixed value or a varied value. Circle the answer.*

Jawapan/*Answer*: [3 markah/3 *marks*]

(a) Ganesh menggunakan masa x minit untuk berlari 1 km.
Ganesh spends x minutes to run 1 km.

Nilai yang tetap *A fixed value*	Nilai yang berubah *A varied value*

(b) Beza umur Ali dengan umur Azli sekarang ialah x tahun.
The age difference between Ali and Azli now is x years.

Nilai yang tetap *A fixed value*	Nilai yang berubah *A varied value*

(c) Bil air bulanan rumah Puan Hayati ialah RMx.
The monthly water bill of Puan Hayati's household is RMx.

Nilai yang tetap *A fixed value*	Nilai yang berubah *A varied value*

2 (a) *Circle the algebraic expression which has two terms.*

Jawapan/*Answer*: [2 markah/2 *marks*]

$7x+3$	$5xy-x+2$	$4xy$	$8x-6y$

(b) *Among the following pairs of algebraic terms, which are like terms? Mark (✓) in the* ☐.

Jawapan/*Answer*: [1 markah/1 *mark*]

$4m^2n$, $-6nm^2$	$0.5uv$, $9uvw$	$\frac{p^2q^2r}{4}$, rp^2q^3
☐	☐	☐

3 *Circle the algebraic expression which has three terms.*

Jawapan/*Answer*: [3 markah/3 *marks*]

$3abc$	$\frac{1}{2}m+2n-5$	$5bc-8b$
$5b+c-6$	$3x+4y+6x-4$	
$2x-16y+8$	$11x-20h$	$\frac{m}{7}$

4 *Mark (✓) for the like terms and (✗) for the unlike terms.*

Jawapan/*Answer*: [4 markah/4 *marks*]

(a) $5n^2$, $2n$ ☐

(b) $1.6pr$, $-rp$ ☐

(c) $-\frac{u}{8}$, $11u$ ☐

(d) $2p^2q$, $\frac{1}{3}pq^2$ ☐

5 *Circle all the algebraic terms in one variable.*

Jawapan/ *Answer*: [4 markah/ *marks*]

$0.3g^2h$	$20pq$	$\frac{13}{15}n$	$\frac{m}{12}$
$-9rs$	$18h^2$	$-18t$	$36x$

6 *Mark (✓) for the like terms and (✗) for the unlike terms.*

Jawapan/ *Answer*: [4 markah/ *marks*]

(a)	$-5x, 5y$	
(b)	$2r, 4r$	
(c)	$9a, -3a$	
(d)	$24p, 6q$	

7 *Circle all the like terms for $5r^2s$.*

[3 *markah*/3 *marks*]

$\frac{r^2s}{3}$,	$5rs$,	$0.4r^2s$,	$\frac{2}{r^2s}$,	$-sr^2$,	$3rs^2$

8 *Write (T) for the variable with a fixed value and (B) for the variable with a varied value in the following situations.*

(i) *The profit earned by a shop in each month.* ☐

(ii) *The number of students who participated in a quiz.* ☐

(iii) *The speed of a moving car.* ☐

[3 *markah*/3 *marks*]

Chapter 6 Linear Equations

1 *Determine whether each the following is a linear equation in one variable.*

[3 markah/3 *marks*]

Jawapan/*Answer*:

	Persamaan *Equation*	Ya/Bukan *Yes/No*
(a)	$x + 2y = 50$	
(b)	$p^2 - 18 = 74$	
(c)	$\frac{4}{5}h + 40 = 120$	

2 *Mark (✓) for the linear equations in one variable and (×) for not the linear equations in one variable.*

[5 markah/5 *marks*]

Jawapan/*Answer*:

(a) $5x + 4y = 25$ ( )

(b) $b - 6 = 3b + 9$ ( )

(c) $\frac{y}{4} - 1 = 0$ ( )

(d) $r^2 + 2 = r - 8$ ( )

(e) $3(3 - y) = 7$ ( )

3 *Match the condition of two straight lines that representing the simultaneous linear equations and the types of their solutions.*

[3 markah/3 *marks*]

Jawapan/*Answer*:

(a) Selari *Parallel* ● ● Penyelesaian tak terhingga *Infinite solutions*

(b) Bersilang *Intersecting* ● ● Tiada penyelesaian *No solutions*

(c) Bertindih *Overlapping* ● ● Penyelesaian unik *Unique solutions*

4 *Circle all the linear equations in one variable.*

[3 markah/3 *marks*]

Jawapan/*Answer*:

$\frac{1}{5}j - 3 = 6j$	$c + 8d = 10$	$x^2 + 4 = 32$
$a + b = 7$	$\frac{p-9}{2} = 5$	$6 + m = 1$

4 *Determine whether the following equations are linear or not.* **[4 markah/ *marks*]**

Jawapan/ *Answer*:

(*a*)	$c + 23 = 2$	
(*b*)	$\frac{2}{f} + 8 = g$	
(*c*)	$q - 8 = 31q$	
(*d*)	$x^2y - x = 25$	

5 *Mark (✓) for the linear equations in one variable and (✗) for not.* **[4 markah/ *marks*]**

Jawapan/ *Answer*:

(*a*)	$10 - 4g = g$	
(*b*)	$3e + 5f = 19$	
(*c*)	$\frac{y}{2} + 16 = 9y$	
(*d*)	$3n + y = 8$	

6 *Mark (✓) for the linear equations in two variables and (✗) for not.* [4 markah/ *marks*]

Jawapan/ *Answer*:

(*a*)	$20 - h = 4h$	
(*b*)	$3r + 23 = 11s$	
(*c*)	$16g + h = 9$	
(*d*)	$\frac{p}{4} + 16 = q$	

Chapter 7 Linear Inequalities

1 *Fill in each box with the symbol '>' or '<'.*

Jawapan/*Answer*: [3 markah/3 *marks*]

(a) -13 ☐ -20

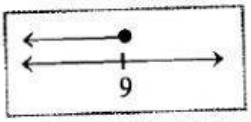
(b) $\sqrt{9}$ ☐ 3^2

(c) -8 ☐ 8.2

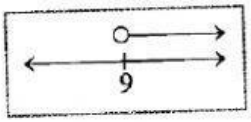
2 *Match each linear inequality with the correct number line.*

Jawapan/*Answer*: [3 markah/3 *marks*]

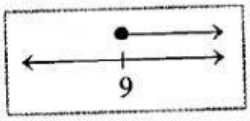
(a) $x > 9$



(b) $x \geq 9$



(c) $x \leq 9$



3 *Fill in the blanks with '>' or '<'.* [3 markah/3 *marks*]

Jawapan/*Answer*:

(a) *If* $a > b$, *then* b ☐ a.

(b) *If* $a < b < c$, *then* c ☐ a.

(c) *If* $a < b$, *then* $\frac{1}{a}$ ☐ $\frac{1}{b}$.

4 *Complete each of the following by using the symbol '>' or '<'.*

Jawapan/*Answer*:

(a) *If* $y < 11$, *then* $-y$ ☐ -11.

(b) *If* $x > 4$, *then* $\frac{1}{x}$ ☐ $\frac{1}{4}$.

(c) *If* $-2 < 5$, *then* 5 ☐ -2.

4 *In the answer space, choose X, Y or Z which represents each of the number lines.*

$-5 < n \leqslant 11$ — *X*

$-5 \leqslant n \leqslant 11$ — *Y*

$-5 \leqslant n < 11$ — *Z*

[3 markah/ *marks*]

Jawapan/ *Answer*:

(*a*)

_____

(*b*)

_____

(*c*)

_____

5 **Bulatkan ketaksamaan yang betul.**
Circle the correct inequalities.

[5 markah/ *marks*]

Jawapan/ *Answer*:

(*a*)	$-21 > -9$	$-21 < -9$
(*b*)	$14 > 11$	$14 < 11$
(*c*)	$-5 > 5$	$-5 < 5$
(*d*)	$23 > 32$	$23 < 32$
(*e*)	$35 < 0.35$	$35 > 0.35$

6 *Fill in the boxes in the answer space by using the integers in the following diagram.*

[3 markah/ *marks*]

(*a*) -6 -13

(*b*) 25 6

(*c*) -13 1

Jawapan/ *Answer*:

(*a*) ☐ > ☐

(*b*) ☐ < ☐

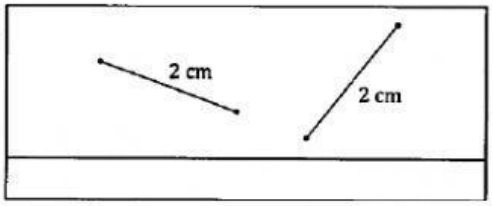
(*c*) ☐ < ☐

Chapter 8 Lines and Angles

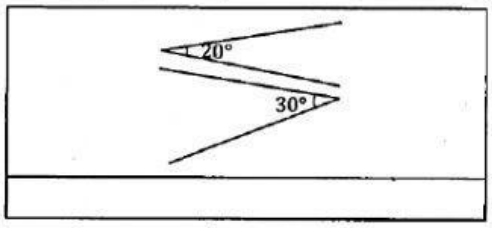
1 *Determine whether the following lines and angles are congruent.* [4 markah/ *marks*]

Jawapan/ *Answer*:

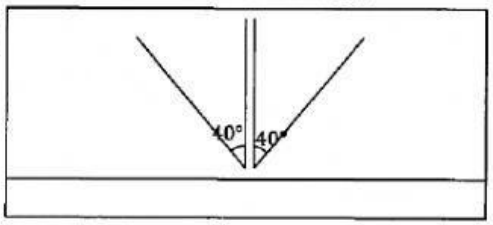
(a)



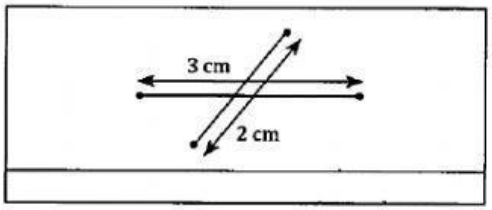
(b)



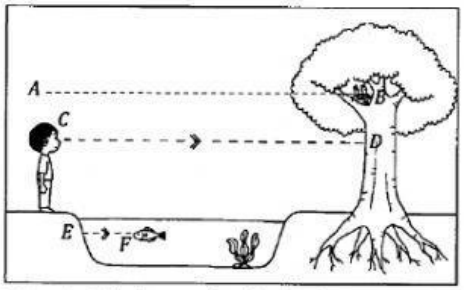
(c)



(d)



2 *The following diagram shows a situation. Line AB, line CD and line EF are parallel.*



State the following angles whether they are angle of elevation or ANGLE OF depression.

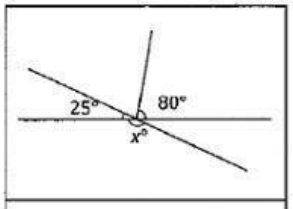
Jawapan/ *Answer*:

(a)	∠DCF	
(b)	∠DCB	
(c)	∠EFC	
(d)	∠ABC	
(e)	∠ABF	

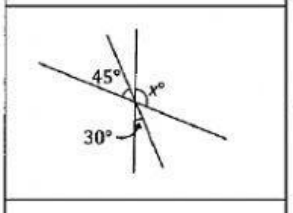
3 *Match each of the following angles with the correct value.*

Jawapan/ *Answer*: [3 markah/ *marks*]

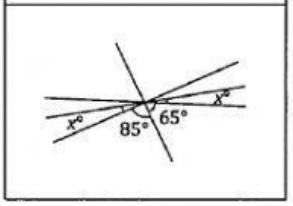
(a)



(b)

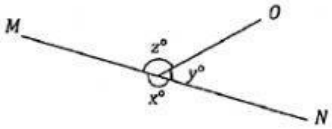


(c)



- 15°
- 30°
- 75°
- 80°
- 105°
- 155°

4 *In the following diagram, MN is a straight line.*



In the answer space, mark (✓) for the correct statement and (✗) for the incorrect statement.

[4 markah/ *marks*]

Jawapan/ *Answer*:

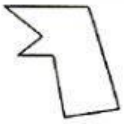
(a)	$z°$ adalah sudut refleks. *$z°$ is a reflex angle.*	
(b)	$x° + y° + z°$ adalah sudut putaran lengkap. *$x° + y° + z°$ is an angle of one whole turn.*	
(c)	$y° + z°$ adalah sama dengan $x°$. *$y° + z°$ is equal to $x°$.*	
(d)	$x°$ dan $z°$ adalah sudut penggenap. *$x°$ and $z°$ are supplementary angles.*	

5 Write 'True' for each of the correct matches and 'False' for each of the wrong matches. [4 marks]

	Type of angle	Pair of angles	True / False
(a)	Sudut pelengkap *Complementary angle*	23°, 67°	
(b)	Sudut penggenap *Supplementary angle*	108°, 62°	
(c)	Sudut konjugat *Conjugate angle*	235°, 135°	
(d)	Sudut refleks *Reflex angle*	78°, 97°	

Chapter 9 Basic Polygons

1 Mark (√) for the polygon and (×) for non-polygon. [3m]

(a)	(b)	(c)
		

2 *State the sides of the following polygons.*

Jawapan/ *Answer*: **[4 markah/** *marks***]**

(*a*)	Heksagon/ *Hexagon*	
(*b*)	Heptagon/ *Heptagon*	
(*c*)	Oktagon/ *Octagon*	
(*d*)	Dekagon/ *Decagon*	

3 *Match the following polygons with their correct number of diagonals.*

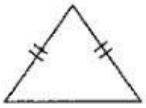
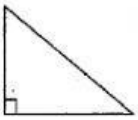
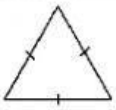
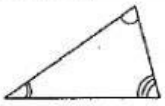
Jawapan/ *Answer*: **[4 markah/** *marks***]**

Sisi empat *Quadrilateral*	•	• 0
Pentagon *Pentagon*	•	• 9
Heksagon *Hexagon*	•	• 5
Segi tiga *Triangle*	•	• 2

4 *State the following type of triangles.* **[4 markah/***marks***]**

Right-angled triangle	Isosceles triangle
Acute-angled triangle	Equilateral triangle

Jawapan/ *Answer*:

(*a*)  _____ _____	(*b*)  _____ _____
(*c*)  _____ _____	(*d*)  _____ _____

5 Mark (√) for the true statement and (×) for the false statement. [5m]

(a) An isosceles triangle could be an obtuse-angled triangle. ( )

(b) A right angled-triangle could be an isosceles triangle. ( )

(c) A right-angled triangle may have axes of symmetry. ( )

(d) A square and a rhombus are quadrilaterals and their diagonals intersect at right angles. ( )

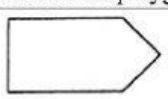
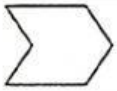
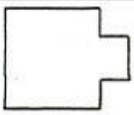
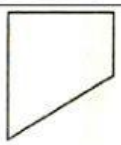
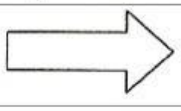
(e) A trapezium may have axes of symmetry. ( )

6 Match each of the quadrilaterals with their geometric properties. [5m]

I	Only one pair of opposite sides is parallel.
II	All the sides are of equal length. The diagonals are perpendicular bisectors of each other. There are four axes of symmetry.
III	Two pairs of adjacent sides are of equal length. One pair of opposite angles is equal.
IV	All the sides are of equal length. The diagonals are perpendicular bisectors of each other. The opposite angles are equal.
V	The opposite sides are parallel and of equal length. There is no axis of symmetry.

	Quadrilaterals	Geometric properties
(a)	Rhombus	
(b)	Parallelogram	
(c)	Square	
(d)	Trapezium	
(e)	Kite	

7 Match each of the polygons with its name. [5m]

(a)		Octagon
(b)		Hexagon
(c)		Pentagon
(d)		Quadrilateral
(e)		Heptagon