LA SALLE COLLEGE
MID-YEAR EXAMINATION 2017-2018

Exam Number			

Form 3 Mathematics
Paper 1

Section C

Time allowed: 105 minutes

Question – Answer Book

Instructions

1. Write your examination number in the spaces provided on the top right corner of this cover page.
2. The total mark of this section is 40.
3. Attempt ALL questions in this section.
   Write your answers in the spaces provided in this Question-Answer Book. Page 9 is a supplementary answer sheet.
4. All working must be clearly shown.
5. Unless otherwise specified, numerical answers should be either exact or correct to **3 significant figures**.
6. The diagrams in this paper are not necessarily drawn to scale.
7. Use of HKEAA approved calculator is allowed.

Question No.	Marks
1	(11)
2	(10)
3	(9)
4	(10)
Supp. Sheet	
Section C Total	(40)

Section C [40 marks]

1. The table below shows the rates for salaries tax of Hong Kong in the year 2016/2017.

Net chargeable income	Rate
On the first $ 40 000	2 %
On the next $ 40 000	7 %
On the next $ 40 000	12 %
Remainder	17 %

(a) Amy's net chargeable income is $138,000. How much salaries tax should Amy pay?

(2 marks)

(b) Bob's salaries tax is 40% less than that of Amy.

(i) Find Bob's net chargeable income.

(ii) By how many percent is Amy's net chargeable income more than that of Bob's?

(6 marks)

Answers written in the margins will not be marked

Page Total

(c) A bank offers a special interest rate of 2.1% p.a. compounded monthly for tax payers. In order to pay his salaries tax in full amount on 1st April, Bob plans to deposit $\$P$ on the first day of January, February and March in the bank.

(i) Set up an inequality for P.

(ii) Hence, find the minimum value of P, correct your answer to 3 significant figures.

(3 marks)

Answers written in the margins will not be marked

Page Total

2. The exam marks of English Paper I of the girls in F.1A are represented by the given stem-and-leaf diagram, where k, m and n are integers. It is known that the median and mean marks of the girls are both 49.

Stem (tens)	Leaf (units)			
3	1	1	5	7
4	0	2	6	
5	k	3	m	n
6	4	8		
7	8			

(a) Find the value of k. (2 marks)

(b) Find the possible values of m and n. (3 marks)

Answers written in the margins will not be marked

Page Total

(c) Mary is one of the girls in F.1A. The table showed Mary's exam marks in English Paper I and Paper II.

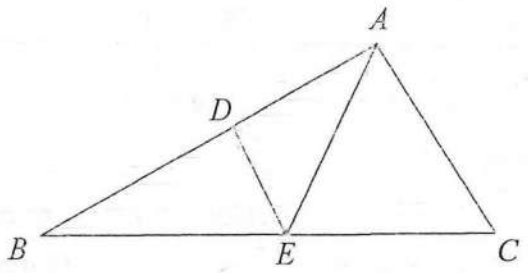
	Paper I	Paper II
Full mark	100	100
Mary's mark	78	40
Weights in report card	7	3

The result in the report card was calculated according to the weights given in the above table with a full mark 100. What is Mary's result in the report card? (Correct answer to the nearest integer.) (2 marks)

(d) Mary was found cheating and her mark of Paper I was adjusted from 78 to 0. There are 16 boys in F.1A and the mean Paper I mark of the boys is x. The mean Paper I mark of the whole class is decreased by 4% after the mark adjustment for Mary. Find the value of x. (3 marks)

Answers written in the margins will not be marked

3. In ΔABC, DE is the perpendicular bisector of AB such that D and E lie on AB and BC respectively. Given that $\angle EAC = \angle ECA$.



(a) Andy claims that $\angle BAC = 90°$. Do you agree? Explain your answer. (4 marks)

Answers written in the margins will not be marked

Page Total

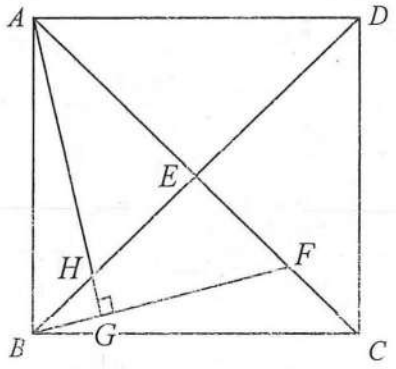
(b) Is E the circumcentre of ΔABC ? Explain your answer. (2 marks)

(c) Jackie claims that the orthocentre, circumcentre and centroid of ΔABC are collinear? Do you agree? Explain your answer. (3 marks)

Answers written in the margins will not be marked

Page Total

4. In the figure, $ABCD$ is a square. $AEFC$ and $BHED$ are the diagonals. AHG is a straight line such that AG is perpendicular to BF.



(a) (i) Show that $\angle HBG = \angle HAE$. (2 marks)

(ii) Hence or otherwise, prove that $\Delta AHE \cong \Delta BFE$. (3 marks)

Answers written in the margins will not be marked

Page Total

(b) Given that $AE = 4$, and $EF = 3$. Find the length of AG. (5 marks)

Answers written in the margins will not be marked

Page Total

Section C [40 marks]

1. The table below shows the rates for salaries tax of Hong Kong in the year 2016/2017.

Net chargeable income	Rate
On the first $ 40 000	2 %
On the next $ 40 000	7 %
On the next $ 40 000	12 %
Remainder	17 %

(a) Amy's net chargeable income is $138,000. How much salaries tax should Amy pay? (2 marks)

Salaries tax = $40000 × (2% + 7% + 12%)
+ $(138000 − 40000 × 3) × 17%
= $(8400 + 3060)
= $11460

(b) Bob's salaries tax is 40% less than that of Amy.

(i) Find Bob's net chargeable income.

(ii) By how many percent is Amy's net chargeable income more than that of Bob's? (6 marks)

(b)(i) Bob's salaries tax = $11460 × (1 − 40%)
= $6876

Let Bob's net chargeable income be $(80000 + x)

40000 × (2% + 7%) + x(12%) = 6876

x = 27300

∴ Bob's net chargeable income is $(80000 + 27300)
= $107300

Answers written in the margins will not be marked

Page Total

(ii) Percentage required

$= \frac{138000 - 107300}{107300} \times 100\%$

$= 28.6\%$ (3 sig. fig.)

(c) A bank offers a special interest rate of 2.1% p.a. compounded monthly for tax payers. In order to pay his salaries tax in full amount on 1st April, Bob plans to deposit $\$P$ on the first day of January, February and March in the bank.

(i) Set up an inequality for P.

(ii) Hence, find the minimum value of P, correct your answer to 3 significant figures.

(3 marks)

(i) Monthly interest rate

$= 2.1\% \div 12$

$= 0.175\%$

(ii) $\{[P(1+0.175\%)+P](1+0.175\%)+P\}(1+0.175\%) \geq 6876$

$P \geq 2283.996681$

∴ The minimum value of P is 2290. (3 sig. fig.)

Answers written in the margins will not be marked

10

Page Total

2. The exam marks of English Paper I of the girls in F.1A are represented by the given stem-and-leaf diagram, where k, m and n are integers. It is known that the median and mean marks of the girls are both 49.

Stem (tens)	Leaf (units)			
3	1	1	5	7
4	0	2	6	
5	k	3	m	n
6	4	8		
7	8			

(a) Find the value of k. (2 marks)

$\frac{46+50+k}{2} = 49$

$k = 2$ /2

(b) Find the possible values of m and n. (3 marks)

$49 = \frac{31+31+35+37+40+42+46+52+53+50+m+50+n+64+68+78}{14}$

$m+n = 9$

$\because n \geq m \geq 3$

$\therefore (m,n) = (3,6)$ or $(4,5)$ /3

Answers written in the margins will not be marked

Page Total

(c) Mary is one of the girls in F.1A. The table showed Mary's exam marks in English Paper I and Paper II.

	Paper I	Paper II
Full mark	100	100
Mary's mark	78	40
Weights in report card	7	3

The result in the report card was calculated according to the weights given in the above table with a full mark 100. What is Mary's result in the report card? (Correct answer to the nearest integer.) (2 marks)

Mary's result $= \frac{78\times7+40\times3}{7+3}$

$= 66.6$

$= 67$ (nearest integer)

(d) Mary was found cheating and her mark of Paper I was adjusted from 78 to 0. There are 16 boys in F.1A and the mean Paper I mark of the boys is x. The mean Paper I mark of the whole class is decreased by 4% after the mark adjustment for Mary. Find the value of x. (3 marks)

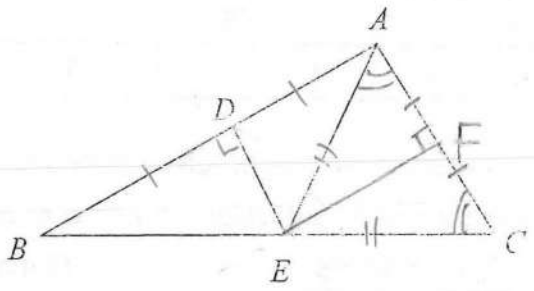
$78 = [(49)(14) + 16x](4\%)$

$x = 79$

Answers written in the margins will not be marked

Page Total 7

3. In ΔABC, DE is the perpendicular bisector of AB such that D and E lie on AB and BC respectively. Given that $\angle EAC = \angle ECA$.



(a) Andy claims that $\angle BAC = 90°$. Do you agree? Explain your answer. (4 marks)

$\because$ DE is the $\perp$ bisector of AB

$\therefore$ DB = DA and $\angle BDE = \angle ADE = 90°$

DE = DE (common side)

$\therefore \Delta DBE \cong \Delta DAE$ (SAS)

$\therefore \angle EBD = \angle EAD$ (corr. $\angle$s, $\cong \Delta$s)

$\angle B + \angle BAC + \angle ACB = 180°$ ($\angle$ sum of Δ)

$\angle B + \angle DAE + \angle EAC + \angle C = 180°$

$\therefore$ I agree with Andy's claim.

$\because 2\angle DAE + 2\angle EAC = 180°$

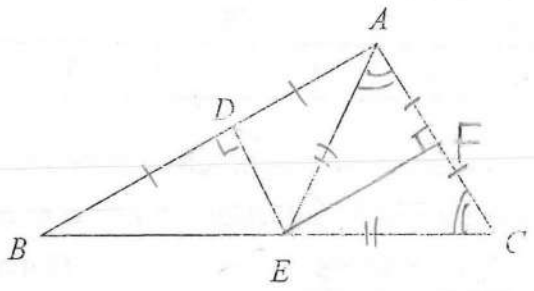
$\angle DAE + \angle EAC = 90°$

$\angle BAC = 90°$

Answers written in the margins will not be marked

Page Total

3. In ΔABC, DE is the perpendicular bisector of AB such that D and E lie on AB and BC respectively. Given that $\angle EAC = \angle ECA$.



(a) Andy claims that $\angle BAC = 90°$. Do you agree? Explain your answer. (4 marks)

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$\angle B + \angle BAC + \angle ACB = 180°$ ($\angle$ sum of Δ)

$\angle B + \angle DAE + \angle EAC + \angle C = 180°$

$\therefore$ I agree with Andy's claim. $\Leftarrow$ ($\because 2\angle DAE + 2\angle EAC = 180°$, $\angle DAE + \angle EAC = 90°$, $\angle BAC = 90°$)

Answers written in the margins will not be marked

Page Total

(b) Is E the circumcentre of ΔABC? Explain your answer. (2 marks)

Construct $\overline{EF} \perp AC$ and F lies on AC.

$\angle EAC = \angle ECA$ (given)

$\therefore$ AE = CE (sides. opp. equal $\angle$s)

$\therefore$ AF = CF (prop. of isos. Δ)

$\therefore$ EF is $\perp$ bisector of AC.

DE is the $\perp$ bisector of AB. (given)

$\because$ DE and EF intersects at E.

$\therefore$ E is the circumcentre of ΔABC.

(c) Jackie claims that the orthocentre, circumcentre and centroid of ΔABC are collinear? Do you agree? Explain your answer. (3 marks)

$\because$ E is circumcentre of ΔABC (proved in (b))

$\therefore$ A circumscribed circle can be constructed with centre E.

$\therefore$ EC = EB (radii)

$\therefore$ AE is a median of ΔABC.

$\therefore$ Centroid lies on AE.

$\because \angle BAC = 90°$ (proved in (a))

$\therefore$ AB and AC are altitudes of ΔABC.

$\therefore$ A is the orthocentre of ΔABC.

$\therefore$ The circumcentre, orthocentre and centroid of ΔABC all lie on st. line AE

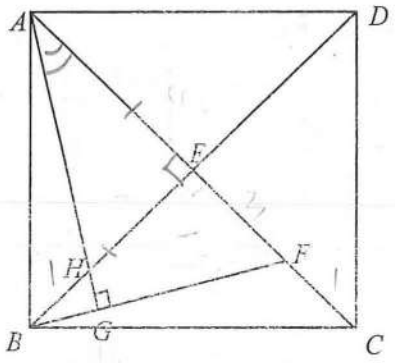
$\therefore$ They are collinear

$\therefore$ I agree with his claim.

Answers written in the margins will not be marked

Page Total

4. In the figure, $ABCD$ is a square. $AEFC$ and $BHED$ are the diagonals. AHG is a straight line such that AG is perpendicular to BF.



(a) (i) Show that $\angle HBG = \angle HAE$. (2 marks)

$\angle AEB = 90^\circ$ (prop. of square)
$\angle AEB = \angle HGB$
$\angle AHE = \angle BHG$ (vert. opp. $\angle$s)
$\angle HBG + \angle HGB + \angle BHG = 180^\circ$ ($\angle$ sum of $\triangle$)
$\angle HAE + \angle AEB + \angle AHE = 180^\circ$ ($\angle$ sum of $\triangle$)
$\therefore \angle HBG = \angle HAE$

2

(ii) Hence or otherwise, prove that $\Delta AHE \cong \Delta BFE$. (3 marks)

$AF = \frac{1}{2} AC$ (prop. of square)
$AC = BD$ (prop. of square)
$BE = \frac{1}{2} BD$ (prop. of square)
$\therefore AE = BE$
$\angle AEH = 90^\circ = \angle BEF$ < [$\angle BEF + 90^\circ = 180^\circ$ (adj. $\angle$s on st. line), $\angle BEF = 90^\circ$]
$\angle EAH = \angle EBF$ (proved in (a)(i))
$\therefore \Delta AHE \cong \Delta BFE$ (ASA)

3

Answers written in the margins will not be marked

5

Page Total

(b) Given that $AE = 4$, and $EF = 3$. Find the length of AG. (5 marks)

$\because \triangle AHE \cong \triangle BFE$

$\therefore AH = BF$ and $AE = BE = 4$ and $EH = EF = 3$ (corr. sides, $\cong \triangle s$)

$BH = 4 - 3 = 1$

$BF^2 = BE^2 + EF^2$ (Pyth. thm.)

$BF = \sqrt{4^2 + 3^2} = 5$

$\therefore AH = 5$

$\angle BHG = \angle AHE$ (proved in (a)(i))

$\angle HBG = \angle HAE$ (proved in (a)(i))

$\angle HGB = \angle HEA$ (proved in (a)(i))

$\therefore \triangle AHE \sim \triangle BHG$ (AAA)

$\therefore \frac{AH}{BH} = \frac{HE}{HG}$ (corr. sides, $\sim \triangle s$)

$\frac{5}{1} = \frac{3}{HG}$

$HG = \frac{3}{5}$

$AG = 5 + \frac{3}{5} = 5\frac{3}{5}$

Answers written in the margins will not be marked

Page Total 5

Examination Number			

Form 3

Mid-Year Examination 2017-2018

Mathematics

Paper II

INSTRUCTIONS

1. Write your examination number in the spaces provided on this cover page.
2. Write down all required information on the Multiple Choice Answer Sheet.
3. Answer all questions. Answer should be marked on the **Multiple Choice Answer Sheet.**
4. Each question carries 2 marks. The total mark is 90.
5. You should mark only ONE answer for each multiple choice question. If you mark more than one answer, you will receive No marks for that question.
6. No marks will be deducted for wrong answer.
7. The diagrams in this paper are not necessarily drawn to scale.

1. Express π^2 as a decimal correct to 3 significant figures.

A. 9.86 B. 9.87 C. 9.88 D. 9.860

2. The actual weight of a machine is 5kg. If it is measured to be 4.9kg, the percentage error of the measurement is

A. 2% B. 2.5% C. 4% D. 1%.

3. $\left(\frac{a^2b}{a^{-2}b^2}\right)^{-2}$

A. $\frac{a^8}{b^2}$. B. $\frac{a^4}{b}$. C. $\frac{b^2}{a^8}$. D. $\frac{b^3}{a^4}$.

4. Find $\frac{25^{2017}-5^{4033}}{25^{2018}-5^{4034}}$ =

A. $\frac{1}{125}$. B. $\frac{4}{25}$. C. $\frac{1}{5}$. D. $\frac{1}{30}$.

5. If $\sqrt{3}\,x = 9+\sqrt{27}$, then x =

A. 6. B. $3(1+\sqrt{3})$. C. $\frac{7+\sqrt{3}}{\sqrt{3}}$. D. $2\sqrt{3}+1$.

6. Which of the following is/ are true?

I. $1_2 = 1_{10}$

II. $9_{16} \times 9_{10} = 81_{10}$

III. $5629_{10} = 1010111111100_2$

A. I only B. II only. C. I and II only. D. II and III only.

7. Factorize $4x^2 - 4xy + y^2 - 2x + y$

A. $(2x+y)(2x-y-1)$ B. $(2x-y)(4x-y)$. C. $(2x-y)(2x-y-1)$. D. $(2x-y-1)^2$.

8. Factorize $6x^2 - 12x - 18$

A. $(x-3)(x+1)$. B. $6(x-3)(x+1)$. C. $(2x-6)(3x+3)$. D. $(x-3)(6x+6)$.

9. Factorize $2xy - 2x + 4y - 4$

A. $2(xy - x + 2y - 2)$ B. $(2x-1)(y+4)$ C. $2(x+2)(y-1)$ D. $2(x+2)(y+2)$

Go on to the next page

10. A tree is 500cm tall now. If the tree grows 20% taller every year, find the height of the tree after 3 years?

A. 289.4cm B. 800cm C. 864cm D. 976.6cm

11. If the principal is $10 000. What is the annual interest rate if a simple interest of $2 000 is received after 5 years?

A. 25% B. 24% C. 4% D. 3.71%

12. Alan deposits $50 000 in a bank at an interest rate of 2% p.a. compounded quarterly. How long does it take to earn an interest not less than $3 083.9?

A. 12 months B. 15 months C. 36 months D. 39 months

13. The expenses of a shop last month are shown below.

Items	Amount ($)
Rent	20 000
Salary	24 000
Others	6 000

This month, the rent has decreased by 10%, the salary has decreased by 5% and the other expenses have increased by 10%. Find the percentage decrease in the shop's expenses this month.

A. 0.4% B. 2.8% C. 5% D. 5.2%

14. Refer to the following table:

2016/2017

Basic allowance	$104 000
Progressive rates	
Net chargeable income	Tax rate
On the first $32 500	2%
On the next $32 500	7.5%
On the next $32 500	13%
Remainder	18.5%

2017/2018

Basic allowance	$100 000
Progressive rates	
Net chargeable income	Tax rate
On the first $30 000	2%
On the next $30 000	8%
On the next $30 000	14%
Remainder	20%

Alan is single. His income in 2016/2017 was $150 000. If his salary in 2017/18 decreased by 10%, find the percentage decrease in the salaries tax paid by him. (Give the answer correct to 2 decimal places.)

A. 39.85% B. 46.81% C. 54.55% D. 62.71%

15. If a number is increased by 25% and then decreased by 10%, it becomes 99. Find the number.

A. 72 B. 82.5 C. 88 D. 120

Go on to the next page

16. $\frac{x^2+x-2}{x^2-1} \times \frac{x^2-6x-7}{x^2+4x+4} =$

A. $\frac{(x-1)(x+7)}{(x+1)(x+2)}$ B. $(x+2)(x-7)$ C. $\frac{x-7}{x+2}$ D. $\frac{x+7}{x+2}$

17. Solve the equation $(x-a)(x+a-1) = x-a$.

A. $x = a$ B. $x = -a+1$ C. $x = a$ or $-a+1$ D. $x = a$ or $-a+2$

18. If p and q are the roots of the equation $x^2 - 7x + 10 = 0$ and $p < q$, then $p + q =$

A. - 3. B. –7. C. 3. D. 7.

19. If $(2x-1)^2 = (x-2)^2$, solve for x.

A. $x = -3$ or -2 B. $x = -3$ or 1 C. $x = -1$ or 0 D. $x = -1$ or 1

20. If x is a positive integer satisfying the inequality $2x - 5 \le 5 - 2x$, then how many number(s) of x satisfy the inequality?

A. 0 B. 1. C. 2. D. 3.

21. If $a > b$ and $c > d$, which of the following must be true?

I. $ac > bd$

II. $a - d > b - c$

III. $a^2 + b^2 > c^2 + d^2$

A. II only B. I and II only C. II and III only D. I, II and III

22. If $-3 \le x \le 7$ and $4 \le y \le 9$, what is the range of values of $x - y$?

A. $-12 \le x - y \le 3$ B. $-7 \le x - y \le -2$ C. $-3 \le x - y \le 12$ D. $-1 \le x - y \le 16$

23. Let $a = 6x - 48$ and $b = 7x - 112$. Given that the larger number between a and b is not negative, find the smallest possible value of x.

A. 6 B. 7 C. 8 D. 11

24. If the mean of three numbers a, b and c is 25, what is the mean of $a + 3$, $b + 4$ and $c - 1$?

A. 9. B. 23. C. 27. D. 81.

25. For the eight numbers $y, y, y+4, y+6, y-2, y+10, y-7, y+5$, which of the following must be true?

I. The mean is $y + 2$

II. The median is $y + 2$

III. The mode is 2.

A. I only B. II only C. I and II only D. I, II and III

Go on to the next page

26. The scores of Alan in four Mathematics tests are 62, 68, 70 and 84. If the weights assigned to the tests are 1, 2, 3 and 4 respectively, find the weighted mean of Alan in Mathematics.

A. 69 B. 71 C. 73 D. 74.4

27. The mean height of a class of students is 170cm. It becomes 170.2 cm if one student of height 163cm is excluded. How many students were there in the class at the beginning?

A. 36 B. 38 C. 37 D. 39

28. It is given a set of data:

23, 34, 35, 39, 32, 27, 34.

If the datum 32 is removed from the set of data, how will the mean and the mode be affected?

	Mean	Mode
A.	Unchanged	Unchanged
B.	Unchanged	Decreased
C.	Increased	Unchanged
D.	Decreased	Increased

29. The distribution of the heights of students is listed below.

Height (cm)	150 – 154	155 – 159	160 – 164	165 – 169	170 – 174
Frequency	1	13	6	10	12

In which class does the median of the heights of students appear?

A. "155 cm – 159 cm" B. "160 cm – 164 cm"

C. "165 cm – 169 cm" D. "170 cm – 174 cm"

30. Consider the data set:

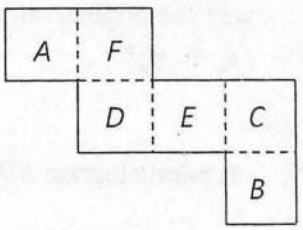
15, 6, x, 4, 11, 11, y, 16, 13, z

If the mean is 12 and the mode is 16, find x, y and z, where $x \leq y \leq z$.

A. $x = 12, y = 16, z = 16.$ B. $x = 13, y = 16, z = 16.$

C. $x = 16, y = 16, z = 18.$ D. $x = 16, y = 16, z = 20.$

31. Consider a cube formed from the following net. If the letter 'B' is facing up, what would be the letter on the bottom face?



A. F B. E

C. D D. A

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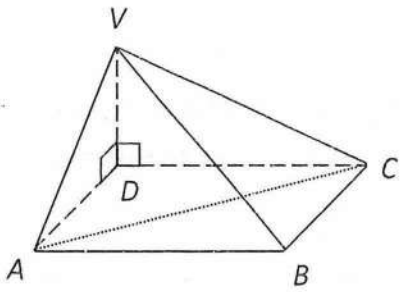
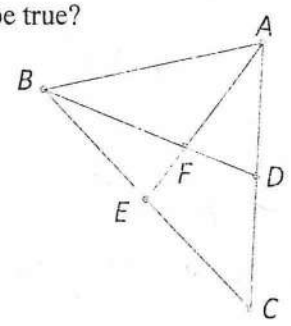
32. In the figure, the base $ABCD$ is a rectangle. If VD is perpendicular to the plane $ABCD$, then the angle between the edge VB and the base $ABCD$ is



A. $\angle VBC$. B. $\angle VBA$.
C. $\angle VBD$. D. none of the above.

33. In the figure below, AE and BD are medians, which of the following must be true?



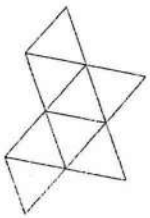
I. $\angle BAE = \angle CAE$

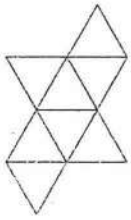
II. F is the centroid of ΔABC

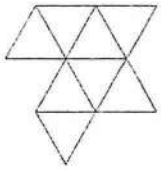
III. Area of $\Delta ABC = \frac{1}{2} \times BC \times AE$

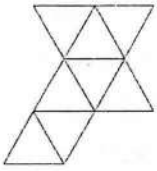
A. I only B. I and II only
C. II only D. III only

34. Which of the following is not the net of a regular octahedron?

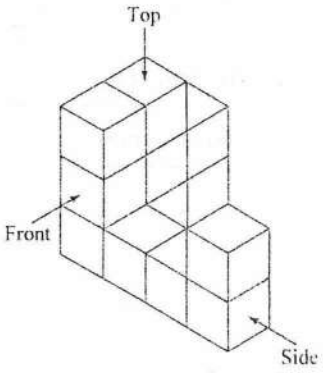
A. 

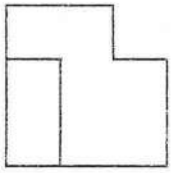
B. 

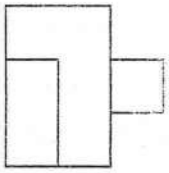
C. 

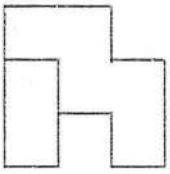
D. 

35. Which of the following can be the side view(s) of the figure beside?



I. 

II. 

III. 

A. I only B. II only C. I and II only D. I and III only

36. What is the angle of rotation that a solid rotates about the axis of rotational symmetry of order 5 to coincide with the original once?

A. 72° B. 90° C. 120° D. 180°

37. In parallelogram ABCD, one of the angles is $\frac{1}{7}$ of the other. Find the larger ones.

A. 105° B. 120° C. 137.5° D. 157.5°

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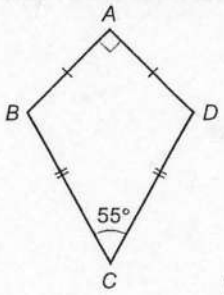
38. In the figure, ABCD is a kite. Find $\angle ABC$.



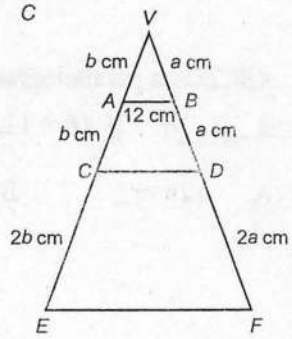
A. 55°

B. 90°

C. 107.5°

D. 145°

39. In the figure, *VACE* and *VBDF* are straight lines. Find the length of *EF*.



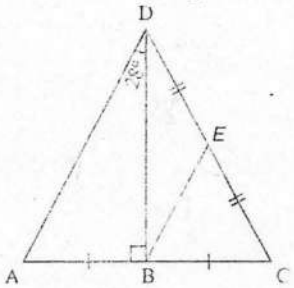
A. 48 cm

B. 36 cm

C. 24 cm

D. 12 cm

40. In the figure. *DEC* and *ABC* are straight lines. Find $\angle CEB$.



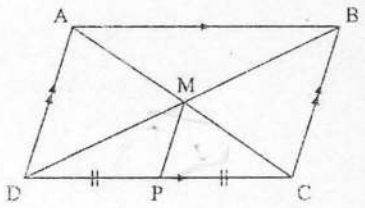
A. 28°

B. 36°

C. 48°

D. 56°

41. ABCD is a parallelogram. If the area of ΔDMP is 10 cm^2, find the area of ABCD.



A. 80 cm^2

B. 64 cm^2

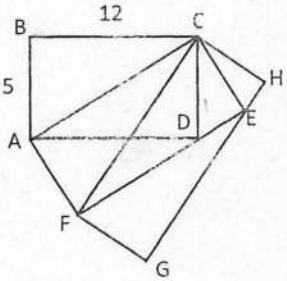
C. 60 cm^2

D. 40 cm^2

42. *ABC* is an isosceles triangle with $\angle A = 68°$, $\angle B = x°$. Find the sum of all possible values of x.

A. 100° B. 112° C. 124° D. 168°

43. In the figure, *ABCD*, *ACEF* and *CFCH* are rectangles whiles *FDE* and *GEH* are straight lines. If $AB = 5$ and $BC = 12$, find the area of *CFGH*.



A. 60

B. 65

C. 68

D. 70

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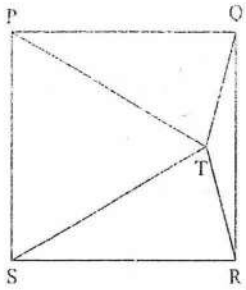
44. In the figure, PQRS is a square and ΔPST is an equilateral triangle. Find ∠RQT.



A. 35°

B. 30°

C. 22.5°

D. 15°

45. *ABCD* is a parallelogram. *M* and *N* are points on *BC* and *CD* respectively such that $AM \perp BC$ and $AN \perp CD$. If $AB = 13$, $BM = 5$ and $MC = 9$, find the length of *MN*.

A. 12 B. $\frac{168}{13}$ C. $\frac{180}{13}$ D. $\frac{168}{17}$

~~End of Paper~~

La Salle College

Mid-Year Examination 2017-2018

Mathematics

Paper II

Answer

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	B	A	C	D	B	C	C	B	C	C	C	C	D	A	C

Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	C	D	D	D	C	A	A	C	C	C	D	A	A	C	A

Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	A	C	C	C	D	A	D	C	A	D	A	D	A	D	C