Class	Index Number	Name

新 加 坡 海 星 中 學

MARIS STELLA HIGH SCHOOL
SEMESTRAL EXAMINATION ONE
SECONDARY ONE

MATHEMATICS **12 May 2016**

2 hours

Additional Materials:
Graph paper (1 piece)

INSTRUCTIONS TO CANDIDATES

Write your class, index number and name on all the work you hand in.
Write in dark blue or black pen.
You may use a pencil for any diagrams or graphs.
Do not use paper clips, highlighters, glue or correction fluid.

Answer all questions.
If working is needed for any question it must be shown with the answer.
Omission of essential workings will result in loss of marks.
You are expected to use a scientific calculator to evaluate explicit numerical expressions.
If the degree of accuracy is not specified in the question, and if the answer is not exact, give your answer to three significant figures. Give answer in degrees to one decimal place.

At the end of the examination, submit your question paper and graph paper separately.
The number of marks is given in brackets [ ] at the end of each question or part question.

The total number of marks for this paper is 80.

For Examiner's Use	
Subtotal	
P	
R	
U	
	80

This document consists of 14 printed pages.

Downloaded from SingaKids.com

1. Calculate $\frac{11.83^3}{18.52-2.70}$.

(a) Write down the first five digits on your calculator display.

(b) Correct your answer in part (a) to 2 sigificant figures.

Answer (a)..... [1]

(b) ..... [1]

2. For a birthday party, with 203 guests, the caterer will be charging $ 30.90 per person. By approximating both the charge and the number of guests to 2 significant figures, estimate the cost of the catering for the party. Show your working and give your answer to 3 significant figures.

Answer ..... [2]

3. Consider the following sequence of numbers

$0, 7, 26, 63.....$

Write down

(a) the next term in the sequence

(b) an expression for the nth term of the sequence of numbers.

Answer (a)..... [1]

(b) ..... [1]

Downloaded from SingaKids.com

4. At 8 am, Alvin, Ben and Calvin started jogging from the starting point of a 400 m circular track. Alvin took 100 seconds, Ben took 105 seconds and Calvin took 126 seconds respectively to complete one round. What time would they meet again at the starting point, if they were jogging in the same direction at constant speed ?

Answer ..... [3]

5. (a) Factorise $3xy - 6ay + 8a - 4x$ completely.

Answer (a)..... [2]

(b) (i) Factorise $st + sr$.

(ii) Hence, using the result from (i) find the value of $6789 \times 501 + 6789 \times 499$.

Answer (b) (i)..... [1]

(ii).....[2]

Downloaded from SingaKids.com

6. (a) Write down the largest integer that satisfy $-2 \le a < 3$.

Answer (a) $a =$ ..... [1]

(b) Solve the inequality $2x - 4x \ge 3 - 9$ and illustrate the solution on the number line.

Answer (b) ..... [3]

7. (a) The price of a macbook is \$1298 including 7% sales tax. Calculate the price of the Macbook before tax, correcting your answer to the nearest cents.

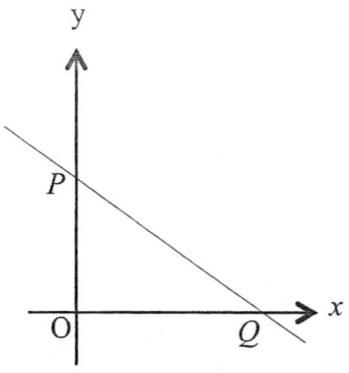
Answer (a) ..... [2]

(b) Members of Spartan Sports Shop are entitled to a 8% discount on all items sold in the shop. If a customer pays cash, he will receive a 6% discount on the amount due. The marked price of a pair of sports shoes is \$109. Find out the amount a member has to pay if he pays by cash.

Answer (b) ..... [2]

Downloaded from SingaKids.com

8. The diagram shows a sketch of the graph of $3y = 12 - 2x$.
The line crosses the axes at P and Q.
Find
(a) the coordinates of P,
(b) the coordinates of Q, and
(c) the gradient of PQ.



Answer (a) ..... [1]

(b) ..... [1]

(c) .....[2]

9. Consider the following numbers : $\sqrt{7}$, $\frac{5}{7}$, π, -5, 23, 0, $\frac{1}{4}$, 1.

(a) Arrange the numbers in the ascending order.

Answer (a)..... [2]

(b) From the list of the numbers above, state
(i) the irrational number(s).
(ii) the recurring decimal(s).
(iii) the prime number(s).

Answer (b) (i) ..... [1]

(ii).....[1]

(iii).....[1]

Downloaded from SingaKids.com

10. (a) (i) Express 504 as a product of its prime factors.

Answer (a) (i) ..... [2]

(ii) Given that $\frac{504}{k}$ is a perfect square, write down the smallest possible value of k.

Answer (ii) k = ... [1]

(b) Find the highest common factor of 504 and 60. Express your answer in ***index notation***.

Answer (b) ..... [2]

Downloaded from SingaKids.com

11. (a) Expand and simplify $5y(4x-8)-4x(3-4y)$.

Answer (a) ..... [2]

(b) (i) Factorise the result in part (a).
(ii) Hence or otherwise, find the value of the expression when $x=-8$ and $y=5$.

Answer (b) (i) ..... [1]

(ii) ..... [2]

Downloaded from SingaKids.com

12. (a) Express $\frac{2(x-2)}{3}-\frac{2x-5}{6}-\frac{1}{2}$ as a single fraction in its simplest form.

Answer (a) ..... [3]

(b) Hence solve the equation $\frac{2(x-2)}{3}-\frac{2x-5}{6}-\frac{1}{2}=1\frac{1}{4}$.

Answer (b) ..... [2]

Downloaded from SingaKids.com

13. The employees of a company in Singapore are offered an increase in wages calculated according to two different schemes.

Scheme *A* gives an increase of 5 % of their monthly wage.

Scheme *B* gives an increase of 3.5 % of their monthly wage plus an extra \$60 per month.

(a) Harry's present monthly salary is \$900. Which scheme should he choose ? Explain your answer.

Answer (a) ..... [2]

(b) Kelvin finds that his new monthly wage will be the same under both schemes. Find his current monthly wage.

Answer (b) ..... [2]

Downloaded from SingaKids.com

14. Evaluate the following without the use of calculators.

(a) $(-3)^3 + 81 \div 9 + 4 \times (-7)^2$,

Answer (a) ..... [2]

(b) $\left[\frac{6}{7} - \left(-\frac{3}{4}\right)\right] \div \left[-\frac{5}{6} - 1\frac{1}{3}\right]$.

Answer (b) ..... [4]

Downloaded from SingaKids.com

15. Sticks of equal length are used to form a series of regular hexagons. The first three figures are shown below.

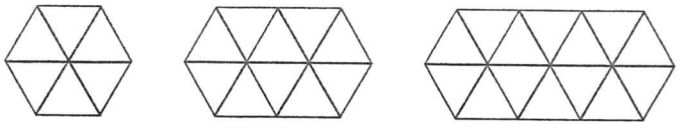


Figure 1 Figure 2 Figure 3

Figure	Number of small equilateral triangles	Number of sticks used
1	6	12
2	10	19
3	14	26
⋮	⋮	⋮
5	a	b
⋮	⋮	⋮
n	h	k

(a) Find the values of a and b.

Answer (a) a = ... [1]

b = ... [1]

(b) Express h in terms of n.

Answer (b) h = ... [1]

(c) Express k in terms of n.

Answer (c) k = ... [1]

(d) How many small equilateral triangles will there be in the Figure 25?

Answer (d) ..... [1]

(e) How many sticks will be needed to form the Figure 40?

Answer (e) ..... [1]

(f) Is it possible for Figure n to have 300 small equilateral triangles ?
Explain your reasons clearly.

.....

.....

..... [2]

Downloaded from SingaKids.com

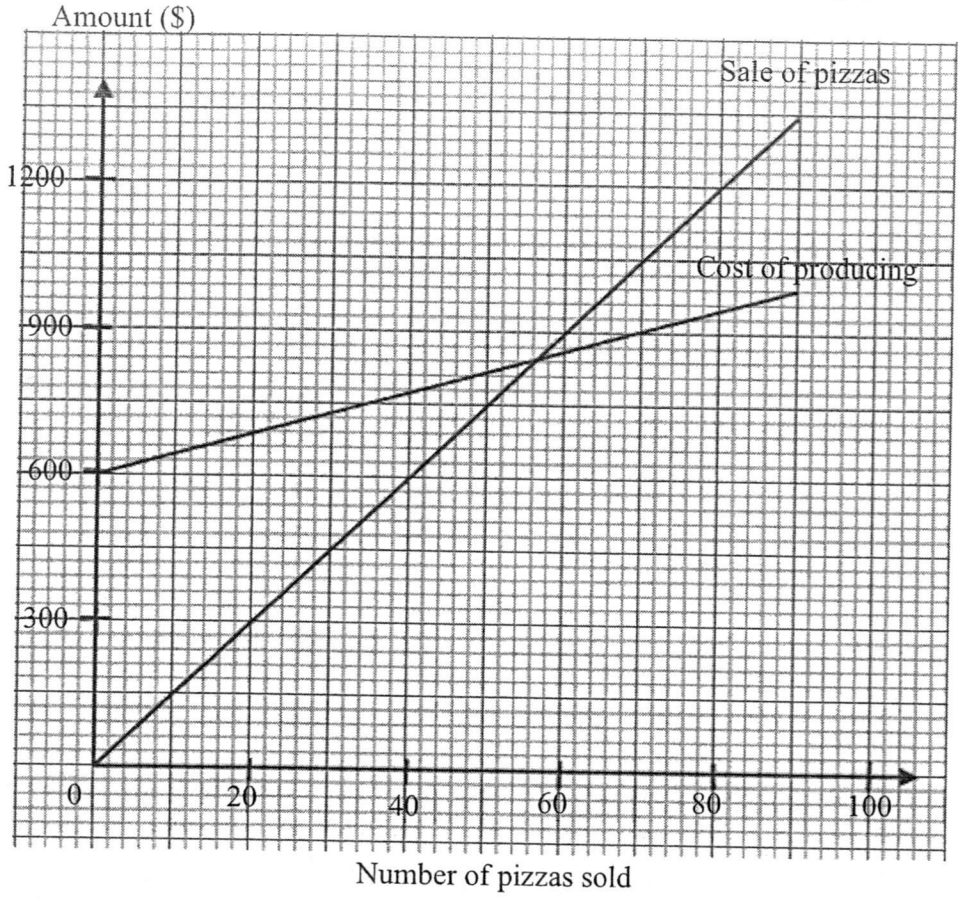
16. The average age of four men is 32.
Calvin is 6 years younger than Alex and 3 times as old as Benedict. Derek's age is two times the difference between Alex's age and Bendict's age. Taking Calvin's age as x years old, form an equation and use it to find Derek's age.

Answer Derek's age is ..... [4]

12

Downloaded from SingaKids.com

17. The graphs show the amount received by a shop from the sale of pizzas and the cost of producing the pizzas. Use the graphs to answer the following questions.



(a) Find the
(i) total amount received from selling 70 pizzas.
(ii) profit earned from selling 76 pizzas.

Answer (a) (i) ..... [1]

(ii) .....[2]

(b) What is the selling price of one pizza?

Answer (b) ..... [1]

(c) Explain the meaning of the point of intersection of the graphs.

.....

.....[1]

Downloaded from SingaKids.com

18. **Answer the whole of this question on a sheet of graph paper.**

Given the equation $y = -7x - 3$,

x	-3	0	2
y	18	-3	s

(a) Find the value of s. [1]

(b) Using a scale of 2 cm to represent 1 unit on the x- axis and 1 cm to 2 units on the y- axis, draw the graph of $y = -7x - 3$ for the value of x from -3 to 2. [3]

(c) Using the graph, find the value of
(i) y when $x = 1.4$, [1]
(ii) x when $y = 10.8$. [1]

(d) From your graph, is (-1, 5) a solution of $y = -7x - 3$? Explain your answer. [1]

- END OF PAPER -

Downloaded from SingaKids.com

Class	Index Number	Name

新 加 坡 海 星 中 學

MARIS STELLA HIGH SCHOOL
SEMESTRAL EXAMINATION ONE
SECONDARY ONE

MATHEMATICS **11 May 2016**

2 hours

Additional Materials:
Graph paper (1 piece)

INSTRUCTIONS TO CANDIDATES

Write your class, index number and name on all the work you hand in.
Write in dark blue or black pen.
You may use a pencil for any diagrams or graphs.
Do not use paper clips, highlighters, glue or correction fluid.

Answer all questions.
If working is needed for any question it must be shown with the answer.
Omission of essential workings will result in loss of marks.
You are expected to use a scientific calculator to evaluate explicit numerical expressions.
If the degree of accuracy is not specified in the question, and if the answer is not exact, give your answer to three significant figures. Give answer in degrees to one decimal place.

At the end of the examination, submit your question paper and graph paper separately.
The number of marks is given in brackets [ ] at the end of each question or part question.

The total number of marks for this paper is 80.

For Examiner's Use	
Subtotal	
P	
R	
U	
	80

This document consists of 14 printed pages.

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

1. Calculate $\frac{11.83^3}{18.52-2.70}$.

(a) Write down the first five digits on your calculator display.

(b) Correct your answer in part (a) to 2 sigificant figures.

Answer (a)..... 104.65 ..... [B1]

(b) ..... 100..... [B1]

2. For a birthday party, with 203 guests, the caterer will be charging $ 30.90 per person. By approximating both the charge and the number of guests to 2 significant figures, estimate the cost of the catering for the party. Show your working and give your answer to 3 significant figures.

Solutions :
Estimated cost
$= \$200 \times 31 ---------- [M1]$
$= \$6200 ---------- [A1]$

Answer .....$.6200..... [2]

3. Consider the following sequence of numbers

$0, 7, 26, 63.....$

Write down

(a) the next term in the sequence

(b) an expression for the nth term of the sequence of numbers.

Answer (i).....124..... [B1]

(ii) ..... $n^3 - 1$ ..... [B1]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

4. At 8 am, Alvin, Ben and Calvin are at the starting point of 400 m circular track. Alvin takes 100 seconds, Ben takes 105 seconds and Calvin takes 126 seconds respectively to complete one round. What time will they meet again at the starting point, if they are running in the same direction?

Solution :

$100 = 2^2 \times 5^2$

$105 = 3 \times 5 \times 7$ *[M1]*

$126 = 2 \times 3^2 \times 7$

$LCM = 2^2 \times 3^2 \times 5^2 \times 7$

$= 6300$ ----------[M1]

= 105 mins

Time they will meet again at 0945 *[A1]*

Answer .....0945..... [3]

5. (a) Factorise $3xy - 6ay + 8a - 4x$ completely.

$3xy - 6ay + 8a - 4x$

$= 3y(x - 2a) + 4(2a - x)$ -----[M1]

$= 3y(x - 2a) - 4(x - 2a)$

$= (x - 2a)(3y - 4)$ --------[A1]

Answer (a)..... $(x - 2a)(3y - 4)$ ..... [2]

(b) (i) Factorise $st + sr$.

(ii) Hence, using the result from (i) find the value of $6789 \times 501 + 6789 \times 499$.

(i) $st + sr = s(t + r)$ ----------[B1]

(ii) $6789 \times 501 + 6789 + 499$

$= 6789(501 + 499)$ -----[M1]

$= 6789(1000)$

$= 6789000$ ---------[A1]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

6. (a) Write down the largest integer that satisfy $-2 \le a < 3$.

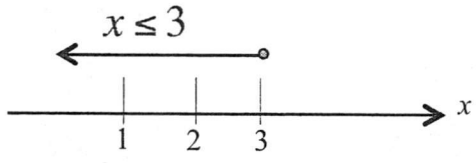
Answer (a) $a =$ .....2..... [B1]

(b) Solve the inequality $2x - 4x \ge 3 - 9$ and illustrate the solution on the number line.

$2x - 4x \ge 3 - 9$

$-2x \ge -6$ ----------[M1]

$x \le 3$ ----------[A1]



[A1]

Answer (b) ..... $x \le 3$ ..... [3]

7. (a) The price of a macbook is \$1298 including 7% sales tax. Calculate the price of the Macbook before tax, correct your answer to the nearest cents.

$= 1298 \times \frac{100}{107}$ ------[M1]

$= 1213.08$ -------[A1]

Answer (a) .....\$.1213.08..... [2]

(b) Members of Spartan Sports Shop are entitled to a 8% discount on all items sold in the shop. If a customer pays cash, he will receive a 6% discount on the amount due. The marked price of a pair of sports shoes is \$109. Find out the amount a member has to pay if he pays by cash.

Solution :

Price of sport shoe

$= 109 \times \frac{94}{100} \times \frac{92}{100}$ -------[M1]

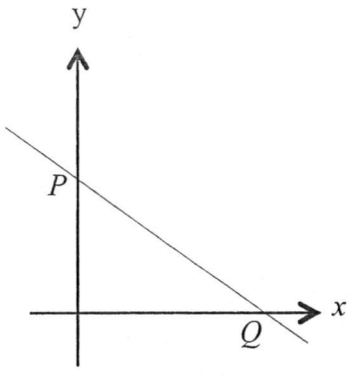
$= \$94.26$ ----------[A1]

Answer (b) .....\$94.26..... [2]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

8. The diagram shows a sketch of the graph of $3y = 12 - 2x$.
The line crosses the axes at P and Q.
Find
(a) the coordinates of P
(b) the coordinates of Q, and
(c) the gradient of PQ.



Solution :
When x = 0 3y=12-2(0)
y=4
When y = 0 , 3(0) = 12-2x
2x=12
x=6

Gradient of PQ
$= -\frac{4}{6}$ -------[M1]
$= -\frac{2}{3}$ -------[A1]

Answer (a) P (0,4) [1]

(b) Q (6,0)[1]

(c)...- $\frac{2}{3}$ ... [2]

9. Consider the following numbers : $\sqrt{7}$, $\frac{5}{7}$, π, -5, 23, 0, $\frac{1}{4}$, 1.

(a) Arrange the numbers in the ascending order.

Answer (a)..... $-5, 0, \frac{1}{4}, \frac{5}{7}, 1, \sqrt{7}, \pi, 23$ ..... [2]

(b) Write down
(i) the irrational number(s).
(ii)the recurring decimal(s).
(iii) the prime number(s).

Answer (b) (i) ..... $\sqrt{7}, \pi$ ..... [1]

(ii)..... $\frac{5}{7}$ .....[1]

(iii)..... 23.....[1]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

10. (a) (i) Express 504 as a product of its prime factors.

Solution :

(a) (i) $504 = 2^3 \times 3^2 \times 7$ ------[B1]

2	504
2	252
2	126
3	63
3	21
	7

[M1]

Answer (a) (i) ..... $504 = 2^3 \times 3^2 \times 7$ ..... [2]

(ii) Given that $\frac{504}{k}$ is a perfect square, write down the smallest possible value of k.

Solution :

$\frac{504}{k} = \frac{2^3 \times 3^2 \times 7}{k}$

For perfect square, k = 2x7 [B1]

Answer (ii) k = ...14..... [1]

(b) Find the highest common factor of 504 and 60. Express your answer in ***index notation***.

$504 = 2^3 \times 3^2 \times 7$

$60 = 2^2 \times 3 \times 5$ ------[M1]

HCF = $2^2 \times 3$ ----------[A1]

Answer (b) ..... $2^2 \times 3$ ..... [2]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

11. (a) Expand and simplify $5y(4x-8)-4x(3-4y)$.

$5y(4x-8)-4x(3-4y)$
$=20xy-40y-12x+16xy$ -------[M1]
$=36xy-40y-12x$ ----------[A1]

Answer (a) (i) ..... $36xy-40y-12x$ ..... [2]

(b) (i) Factorise the result in part (a).
(ii) Hence or otherwise, find the value of the expression when $x=-8$ and $y=5$.

Solution :
(i) $36xy-40y-12x$
$=4(9xy-10y-3x)$ ----[B1]

(ii) $4(9xy-10y-3x)$
$=4(9(-8)(5)-10(5)-3(-8))$ ------[M1]
$=4(-360-50+24)$
$=-1544$ ---------[A1]

Answer (b) (i) ... $4(9xy-10y-3x)$ ..... [1]

(ii) .....-1544..... [2]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

12. (a) Express $\frac{2(x-2)}{3}-\frac{2x-5}{6}-\frac{1}{2}$ as a single fraction in its simplest form.

$$\frac{2(x-2)}{3}-\frac{2x-5}{6}-\frac{1}{2}$$
$$=\frac{4(x-2)}{6}-\frac{2x-5}{6}-\frac{3}{6}$$
$$=\frac{4(x-2)-(2x-5)-3}{6}\text{-------[}M1\text{]}$$
$$=\frac{4x-8-2x+5-3}{6}$$
$$=\frac{2x-6}{6}\text{----------[}M1\text{]}$$
$$=\frac{x-3}{3}\text{----[}A1\text{]}$$

Answer (a) ……$\frac{x-3}{3}$…… [2]

(b) Hence solve the equation $\frac{2(x-2)}{3}-\frac{2x-5}{6}-\frac{1}{2}=1\frac{1}{4}$.

Solution :

$$\frac{2(x-2)}{3}-\frac{2x-5}{6}-\frac{1}{2}=1\frac{1}{4}$$
$$\frac{x-3}{3}=\frac{5}{4}$$
$$4(x-3)=15\text{------[}M1\text{]}$$
$$4x-12=15$$
$$4x=27$$
$$x=6\frac{3}{4}\text{---------[}A1\text{]}$$

Answer (b) …… $6\frac{3}{4}$ …… [2]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

13. The employees of a company in Singapore are offered an increase in wages calculated according to two different schemes.

Scheme *A* gives an increase of 5 % of their monthly wage.

Scheme *B* gives an increase of 3.5 % of their monthly wage plus an extra $ 60 per month.

(a) Harry's present monthly salary is $900. Which scheme should he choose ? Explain your answer.

For scheme A
Total salary after increment = $900x1.05 = $945
For scheme B
Total salary after increment = $900 x1.035 +60 = $991.50 ---------[M1]

He should choose scheme B because the increment is bigger. ----[A1]

Answer (i) .....Scheme B..... [2]

(b) Kelvin finds that his new monthly wage will be the same under both schemes. Find his current monthly wage.

Let his salary be $$x$
$1.05x = 1.035x + 60$ ------[M1]
1.05x-1.035x=60
0.015x = 60
x = $4000----------[A1]

His current salary is $4000.

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

14. Evaluate the following without the use of calculators.

(a) $(-3)^3+81\div 9+4\times(-7)^2$,

$(-3)^3+81\div 9+4\times(-7)^2$

$=-27+9+4\times 49$ ----[M1]

$=-27+9+196$

$=178$ ----------[A1]

Answer (a) .....178..... [2]

(b) $\left[\frac{6}{7}-\left(-\frac{3}{4}\right)\right]\div\left[-\frac{5}{6}-1\frac{1}{3}\right]$.

Solution :

$\left[\frac{6}{7}-\left(-\frac{3}{4}\right)\right]\div\left[-\frac{5}{6}-1\frac{1}{3}\right]$

$=\left[\frac{6}{7}+\frac{3}{4}\right]\div\left[-\frac{5}{6}-\frac{4}{3}\right]$ ----------[M1]

$=\left[\frac{24}{28}+\frac{21}{28}\right]\div\left[-\frac{5}{6}-\frac{8}{6}\right]$

$=\left[\frac{45}{28}\right]\div\left[-\frac{13}{6}\right]$ ----------[M1]

$=\frac{45}{28}\times\left(-\frac{6}{13}\right)$ ----------[M1]

$=-\frac{135}{182}$ ----------[A1]

Answer (b) .....$-\frac{135}{182}$..... [4]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

15. Sticks of equal length are used to form a series of regular hexagons. The first three figures are shown below.



Figure 1 Figure 2 Figure 3

Figure	Number of small equilateral triangles	Number of sticks used
1	6	12
2	10	19
3	14	26
⋮	⋮	⋮
5	a	b
⋮	⋮	⋮
n	h	k

(c) Find the values of a and b.

Answer (a) a = ...22..... [1]

b = ...40..... [1]

(d) Express h in terms of n.

Answer (b) h = ...4n+2...or 4(n-1)+6..... [1]

(e) Express k in terms of n.

Answer (c) k = ...7n+5...or 7(n-1) + 12..... [1]

(f) How many small equilateral triangles will there be in the Figure 25?

h=4(25)+2=102 [A1]

Answer (d) .....102..... [1]

(g) How many sticks will be needed to form the Figure 40?

k=7(40)+5 = 285[B1]

Answer (e) .....285..... [1]

(h) Is it possible for Figure n to have 300 small equilateral triangles ?
Explain your reasons clearly.

Solution : 300=4n+2
4n =298--------[M1]
n= 74.5---[A1]

Answer n is an integer(whole number) , therefore it is not possible to equal to 74.5

.....[2]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

16. The average age of four men is 32.
Calvin is 6 years younger than Alex and 3 times as older as Benedict. Derek's age is two times the difference of Alex and Benedict. Taking Calvin's age as x years old, find the age of Derek.

Solution :

$$x+x+6+\frac{1}{3}x+2\left(x+6-\frac{1}{3}x\right)=128$$

$$2\frac{1}{3}x+6+2\left(\frac{2}{3}x+6\right)=128\text{----------}[M1]$$

$$2\frac{1}{3}x+\frac{4}{3}x+6+12=128\text{-------}[M1]$$

$$3\frac{2}{3}x=110$$

$$x=30\text{----------}[A1]$$

Age of Derek

$$=2\left(\frac{2}{3}\times 30+6\right)$$

$$=2(26)$$

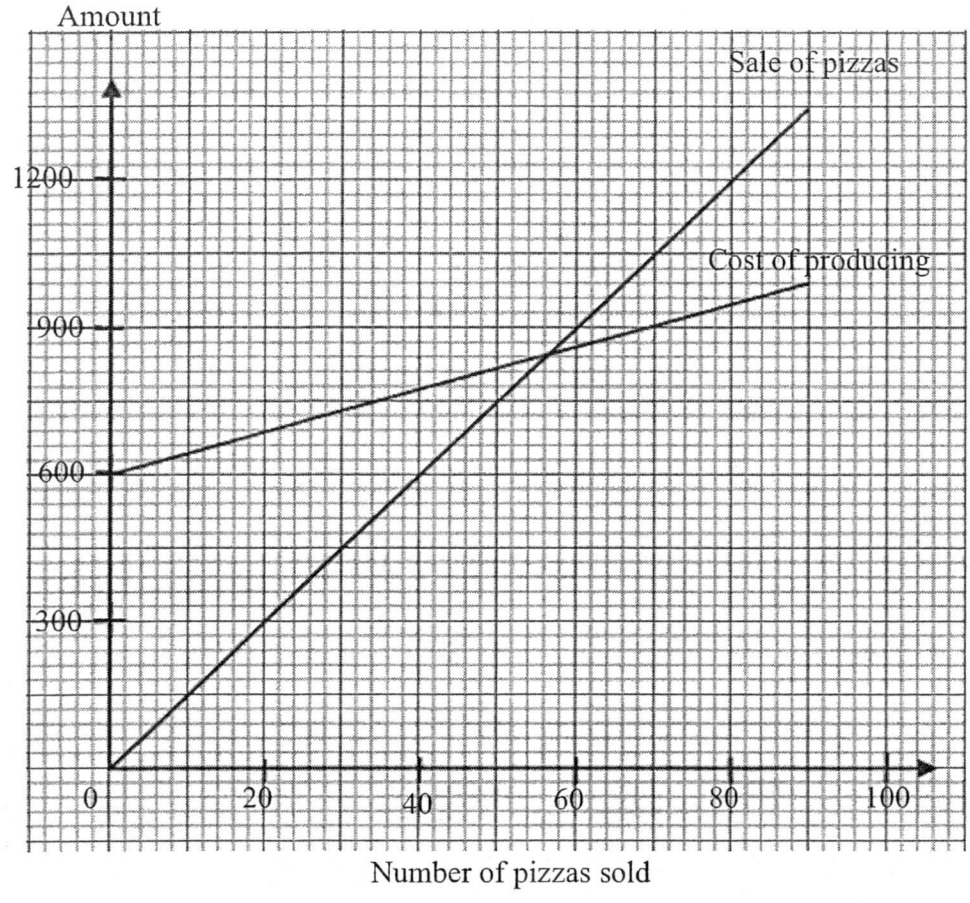
$$=52\text{----------}[A1]$$

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

Answer The age of Derek is ..... [4]

17. The graphs show the amount received by a shop from the sale of pizzas and the cost of producing the pizzas. Use the graphs to answer the following questions.



(a) Find the

(i) total amount received for selling 70 pizzas.

profit earned for selling 76 pizzas.

(ii) Profit = \$1140 – 930 ----------[M1]
= \$210 ----------[A1]

Answer (i) .....\$1050..... [B1]

(ii) .....\$210.....[2]

(b) What is the selling price of one pizza?

$$= \frac{300}{20}$$
$$= \$15$$

Answer (b) .....\$15..... [A1]

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com

(c) Explain the meaning of the point of intersection of the graphs.
The intersection point means the production cost = selling price [B1]

18. **Answer the whole of this question on a sheet of graph paper.**

Given the equation $y = -7x - 3$,

x	-3	0	2
y	18	-3	s

(a) Find the value of s. [1]
(b) Using a scale of 2 cm to represent 1 unit on the x- axis and 1 cm to 2 units on the y- axis, draw the graph of $y = -7x - 3$ for the value of x from -3 to 2. [3]
(c) Using the graph, find the value of
(i) y when $x = 1.4$, [1]
(ii) x when $y = 10.8$. [1]
(d) From your graph, is (-1, 5) a solution of $y = -7x - 3$? Explain your answer. [1]

Solution :
(a) s = -7(2) -3
= -17 (B1)

(c) (i) When x= 1.4
From the graph y = -12.8 (B1)

(ii) When y = 10.8
From the graph, $x = -2 \pm 0.05$ (B1)

(d) When x =-1
$y = -7(-1) - 3$
$y = 4$
Therefore (-1,5) is not the solution of $y = -7x - 3$

- END OF PAPER -

REPRODUCTION OF ANY PART OF THIS QUESTION PAPER WITHOUT PERMISSION IS STRICTLY PROHIBITED.

Downloaded from SingaKids.com