

Finance Problems

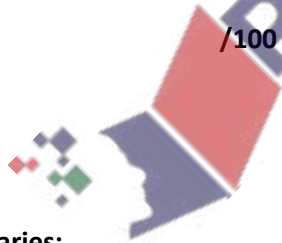
Question Paper 6

Level	IGCSE
Subject	Maths (0580)
Exam Board	Cambridge International Examinations (CIE)
Paper Type	Extended
Topic	Number
Sub-Topic	Finance Problems
Booklet	Question Paper 6

Time Allowed: 46 minutes

Score: /38

Percentage: /100



Grade Boundaries:

A*	A	B	C	D	E	U
>85%	75%	60%	45%	35%	25%	<25%

1 Sima sells x biscuits and y cakes.

(a) (i) She sells at least 100 biscuits.

Write down an inequality in x .

Answer(a)(i) [1]

(ii) She sells at least 120 cakes.

Write down an inequality in y .

Answer(a)(ii) [1]

(iii) She sells a maximum of 300 biscuits and cakes altogether.

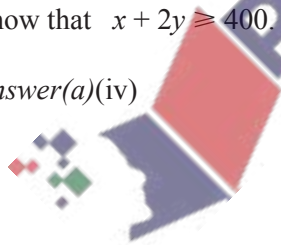
Write down an inequality in x and y .

Answer(a)(iii) [1]

(iv) Sima makes a profit of 40 cents on each biscuit and 80 cents on each cake.
Her total profit is at least \$160.

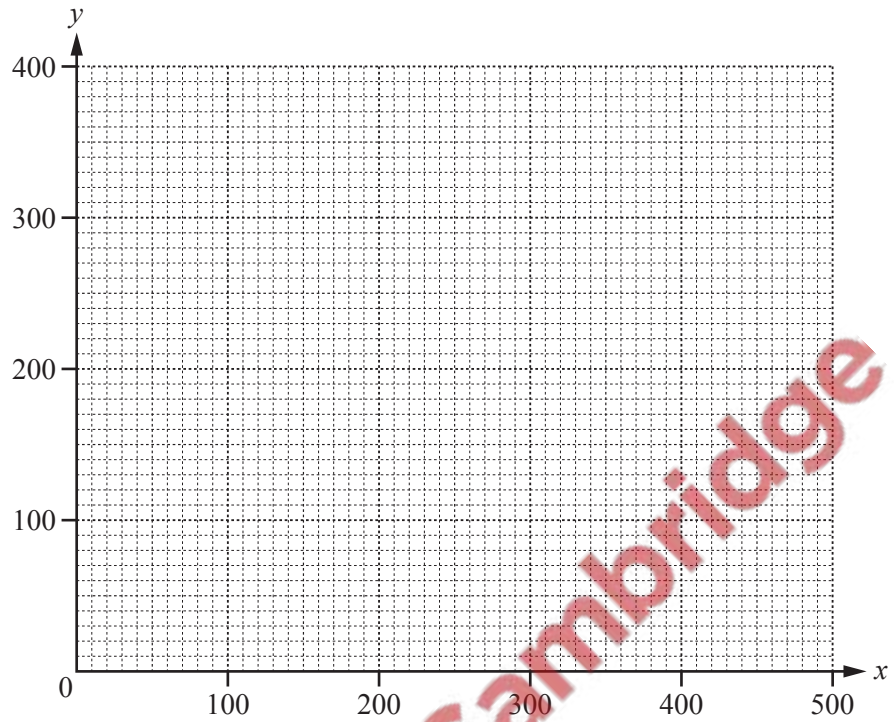
Show that $x + 2y \geq 400$.

Answer(a)(iv)



[1]

(b) On the grid, draw four lines to show the four inequalities and shade the unwanted regions.



[6]

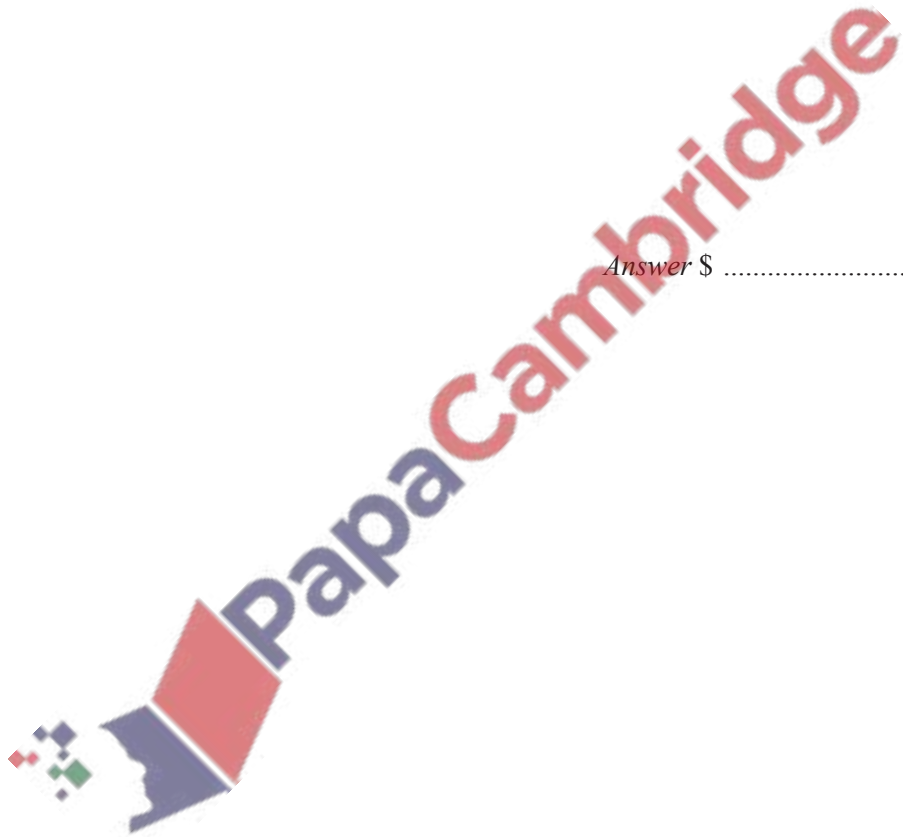
(c) Calculate Sima's maximum profit.
Give your answer in dollars.



Answer(c) \$ [2]

- 2 Robert buys a car for \$8000.
At the end of each year the value of the car has decreased by 10% of its value at the beginning of that year.
- Calculate the value of the car at the end of 7 years.

Answer \$ [2]



3 Last year Mukthar earned \$18900 .
He did not pay tax on \$5500 of his earnings.
He paid 24% tax on his remaining earnings.

(a) Calculate how much tax Mukthar paid last year.

Answer(a)(i) \$ [2]

(ii) Calculate how much Mukthar earned each month after tax had been paid.

Answer(a)(ii) \$ [2]

(b) This year Mukthar now earns \$19750.50 .

Calculate the percentage increase from \$18900.

Answer(b) % [2]

(c) Mukthar has \$1500 to invest in one of the following ways.

- Account A paying simple interest at a rate of 4.1% per year
- Account B paying compound interest at a rate of 3.3% per year

Which account will be worth more after 3 years and by how much?

Answer(c) Account by \$ [5]

4 A school has 220 boys and 280 girls.

(a) Find the ratio of boys to girls, in its simplest form.

Answer(a) : [1]

(b) The ratio of students to teachers is 10 : 1.
Find the number of teachers.

Answer(b) [2]

(c) There are 21 students on the school's committee.
The ratio of boys to girls is 3 : 4.
Find the number of girls on the committee.

Answer(c) [2]

(d) The committee organises a disco and sells tickets.
35% of the school's students each buy a ticket. Each ticket costs \$1.60.
Calculate the total amount received from selling the tickets.

Answer(d) \$ [3]

(e) The cost of running the disco is \$264.
This is an increase of 10% on the cost of running last year's disco.
Calculate the cost of running last year's disco.

Answer(e) \$ [2]

5 At 05 06 Mr Ho bought 850 fish at a fish market for \$2.62 each.
95 minutes later he sold them all to a supermarket for \$2.86 each.

(a) What was the time when he sold the fish?

Answer(a) [1]

(b) Calculate his total profit.

Answer(b) \$ [1]

