



CSEE- Basic Maths

Units/ Rates & Variations

Questions and Answers

Videos with expert tutorials on each topic

CSEE Basic Maths

Revision Topic: Units/Rates & Variations

Section A

Lesson 7: (Revision Week 3)

Instructions: Complete this worksheet and watch this revision video simultaneously on

www.mathsmemory.co.uk/International

Pause and Play the video unlimited times to review your work and write the answers in the blank spaces.
Once you have written your answers, check these with the tutorial answers, as explained in the video.

Self Assess yourself (Out of 10) on your **revision planner** after you have completed the revision video .

Maureen wants to buy a bag of bananas.

Pack A

**8 bananas
£1.10**

Pack B

**14 bananas
£1.70**

Which pack is the best value for money?

Bronze



Calculator

a) Here is a list of ingredients for making 12 chocolate cupcakes.

120 g butter
160 g flour
2 eggs
40 g chocolate chips

James wants to make 30 chocolate cupcakes.
Work out how much of each ingredient he will need?

Bronze



a) Massimo is on holiday in Thailand.

The exchange rate is £1 = 40 Thai Bahts.

He set a budget of £3000 for the entire holiday.
He spent 32,000 Thai Bahts on flights.
He spent 44,000 Thai Bahts on accommodation.
How much spending money, in Thai Bahts, will Massimo have left to spend?
(assuming full budget)

Bronze



Question 4

Nicole is travelling to the USA.
She has £250 in the UK.

The exchange rate is £1 = \$1.40

a) How many dollars can she exchange in London?

b) On her return she has \$490 left. How many pounds could she get from this amount?
(Assume same exchange rate as above)

Bronze



Calculator

Question 5

a) It takes 4 men 12 days to complete a garden landscaping project.
How many days would it take 6 men to complete the project?

b) State one assumption you made in working out your answer to part (a)

Silver



Question 6

y is directly proportional to the square of x . When $y = 10$, $x = 2$.

a) Express y in terms of x

b) Find the value of y when $x = 4$

c) Find the value of x when $y = 160$

d) Sketch the graph

Silver



Question 7

c is inversely proportional to m . When $c = 40$, $m = 5$.

a) Express c in terms of m

b) Find the value of c when $m = 10$

c) Find the value of m when $c = 25$

d) Sketch the graph.

Silver



Question 8

The table shows a set of values for x and y . y is directly proportional to x .

x	1	2	3	4
y	4	8	12	16

a) Find an equation for y in terms of x .

b) Find the value of x when $y = 24$.

The table shows a set of values for x and y . y is inversely proportional to the square of x .

x	1	2	3	4
y	6	$\frac{3}{2}$	$\frac{2}{3}$	$\frac{3}{8}$

c) Find an equation for y in terms of x

d) Find the positive value of x when $y = 54$.

Silver



Question 9

y is directly proportional to d^2 . d is inversely proportional to x .

Given that $y = 12$, $x = 1$ and $d = 2$, find a formula for y in terms of x .

Gold



Question 10

y is inversely proportional to the square of x .

$y = 20$ and $x = 2a$

Show that $y = 5$, when $x = 4a$.

Gold

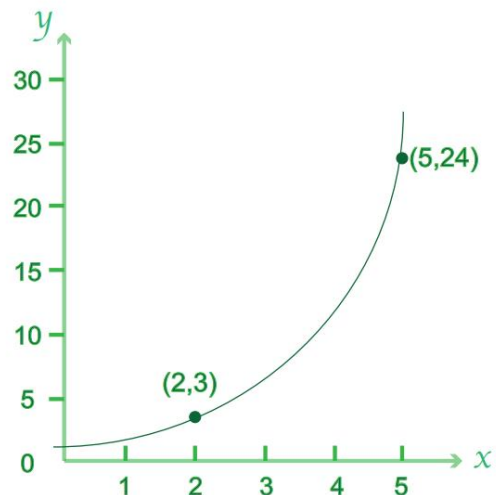


Question 11

This sketch shows part of a graph with equation $y = pq^x$

a) The points with coordinates (2,3) and (5,24) lie on the line. Find the value of p and q .

b) Another coordinate which lies on the line is (k , 12). Find the value of k .



Platinum

