

Direct / Indirect Proportion

Week 14

Lesson Time : 15 - 20 Minutes

Course : Higher

Grade : 7

Back to Basics

Core

Let's Do It!

GCSE Revision Video 66

- **Prior Checklist:** A pack of A5/A6 revision cards.

A pen.

- **Our Video Structure:**

Back to Basics: Quick re-cap.

Core: *Create* your own revision cards with exam style questions.

Let's Do It!: *Apply* your revision cards to another set of exam style questions.

Instructions: Print out this worksheet and watch the revision video simultaneously.

'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.

Create your OWN revision cards when prompted on the worksheet (Back to Basic and Core sections).

Apply your OWN revision cards (Let's Do It! section).

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

WATCH this revision video and **MANY** others on our **FULL** courses at www.mathsmemory.co.uk

Let's get started and create our Master revision card with this suggested template.

MATHS
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Maths Memory

Learn:

- Direct Proportion
- Inverse Proportion

Step 3

Step 2

Step 1

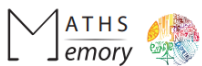
Example(s):

Topic: Direct / Inverse Proportion

Date/week:

GRADE
7/8

Core- Create your revision cards with these exam style questions



Core 1

Topic: Direct / Inverse Proportion

Question 1

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

- Express y in terms of x
- Find the value of y when $x = 4$
- Find the value of x when $y = 160$
- Sketch the graph

Grade

7 (4 Marks)



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Question 2

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 $c = 25$

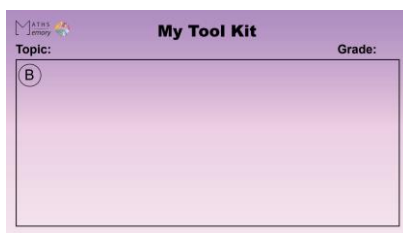
- d) Sketch the graph.

Grade
7 (4 Marks)

Let's get our revision card and create Section A. Look at video for guidance



Let's get our revision card and create Section B. Look at video for guidance



Core 3

Topic: Direct / Inverse Proportion

Question 3

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 $y = 54$.

Grade

7 (6 Marks)



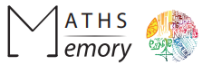
Question 4

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 .

Grade

8 (4 Marks)

Let's Do It!- Apply your revision cards to another set of exam style questions



Let's Do It!

Topic: Direct / Inverse Proportion

Question 1

M is directly proportional to the cube of L. $M = 32$ and $L = 2$.

a) find a formula for M in terms of L.

b) find M when $L = 5$.

c) find L when $M = 108$.

d) Sketch the graph of y is inversely proportional to the square of x .

Grade

7 (4 Marks)



Let's Do It!

Topic: Direct / Inverse Proportion

Question 2

y is inversely proportional to the square root of x .

$y = 4$ and $x = 16$.

Find x when $y = 64$.

Grade

7 (3 Marks)



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Question 3

y is inversely proportional to the square of x .

$$y = 20 \text{ and } x = 2a$$

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

Grade

7 (3 Marks)

Congratulations. You have completed this topic.

Now go back to your revision planner and rate yourself out of 10.