Standard Form

Bronze Topic

Week 10

Lesson Time : 20 - 25 Minutes
Course : Foundation or Higher
Grade : 5

| Back to Basics | Core | Let's Do It! |

GCSE Revision Video 32

- **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 Memory

Learn:
- ↗ Multiply in Standard Form ☐
- ↗ Divide in Standard Form ☐
- ↗ Use Calculator ☐

Topic: Standard Form
Date/week: _____

Step 3

Step 2

Step 1

10

7

4

Example(s):

GRADE
4/5

Back to Basics - Starter questions to warm you up

Maths Memory

Back to Basics   Topic: Standard Form

Question 1

Write the following as ordinary numbers.

a) 3×10^4

b) 4.6×10^5

c) 8.4×10^{-2}

d) Write 600 in standard form.

e) Write 84500 in standard form.

f) Write 0.9 in standard form.

Maths Memory

<u>Core-</u> Create your revision cards with these exam style questions

Core 1 **Topic:** **Standard Form**

Question 1

Write as an ordinary number
a) 4.601×10^{-4}

b) Write in standard form
   0.0000742

c) Write $(3 \times 10^{5}) \times (4 \times 10^{2})$ in standard form.

d) $(4.5 \times 10^{7}) \div (9 \times 10^{-3})$
Give your answer in standard form.

Grade
5 (6 Marks)

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

My Tool Kit
Topic: Grade:
(A)

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

My Tool Kit
Topic: Grade:
(B)

Question 2

a) The mass of the Earth is 5.972×10^{24}
The mass of Mars is 0.8 of the mass of Earth.
Calculate an estimate for the mass of Mars (in standard form)

Grade
5 (2 Marks)

b) Work out
$$\frac{4.5 \times 10^{6} \times 8.4 \times 10^{-5}}{2.25 \times 10^{9}}$$

Grade
5 (2 Marks)
Calculator

Challenge **Topic:** **Standard Form**

Question 3

Work out
a) $(2.4 \times 10^{4}) \times (4.8 \times 10^{-6})$
Give your answer in standard form

Work out
b) $\frac{0.05 \times 0.00018}{0.045}$
Give your answer in standard form

Grade
5 (4 Marks)

Let's Do It!   Topic: Standard Form

Question 1

a) Write 0.0004629 in standard form.

b) Write 6.309×10^{-4} as an ordinary number.

Work out

c) $(8 \times 10^4) \times (3 \times 10^3)$

Give your answer in standard form.
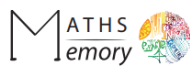
Work out

d) $(2.1 \times 10^3) \div (3 \times 10^{-2})$

Give your answer in standard form.

Grade 4 (6 Marks)

Let's Do It!   Topic: Standard Form

Question 2

a) Work out $\dfrac{9 \times 10^{-3} \times 8.5 \times 10^8}{1.5 \times 10^2}$

Give your answer in standard form

b) Greg was asked to complete the following two numbers.

$A = 8.64 \times 10^4$ $B = 3.4 \times 10^5$

He says '8. 64 is bigger than 3.4, so A is bigger than B'.
Is Greg correct? Justify your answer.

Grade 5 (4 Marks)

Question 3

The table to the right shows information about 8 planets.

a) Write down the name of the planet with the least mass.

b) Find the difference between the mass of Saturn and the mass of Uranus. Write your answer in standard form.

Planet	Distance from Earth	Mass (kg)
Earth	0	5.97×10^{24}
Jupiter	6.29×10^{8}	1.898×10^{27}
Mars	7.83×10^{7}	6.42×10^{23}
Mercury	9.17×10^{7}	3.302×10^{23}
Neptune	4.35×10^{9}	1.024×10^{26}
Saturn	1.28×10^{9}	5.68×10^{26}
Uranus	2.72×10^{9}	8.638×10^{25}
Venus	4.14×10^{7}	4.869×10^{24}

c) Rosario says' Neptune is over 50 times further away from Earth, than Mars is'. Comment.

Grade
5 (4 Marks)
Calculator

Congratulations. You have completed this topic.

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

MATHS Memory