

STANDARD FORM

Pearson Edexcel - Thursday 6 June 2019 - Paper 2 (Calculator) Higher Tier

1.

8 (a) Write 0.00562 in standard form.

.....
(1)

(b) Write 1.452×10^3 as an ordinary number.

.....
(1)

.....
(Total for Question 8 is 2 marks)

Pearson Edexcel - Thursday 8 November 2018 - Paper 2 (Calculator) Higher Tier

2.

7 (a) Write the number 0.00008623 in standard form.

.....
(1)

(b) Work out $\frac{3.2 \times 10^3 + 5.1 \times 10^{-2}}{4.3 \times 10^{-4}}$

Give your answer in standard form, correct to 3 significant figures.

.....
(2)

.....
(Total for Question 7 is 3 marks)

Pearson Edexcel - Specimen Papers Set 1 - Paper 3 (Calculator) Higher Tier

3.

19 (a) Write 0.000423 in standard form.

.....
(1)

(b) Write 4.5×10^4 as an ordinary number.

.....
(1)

.....
(Total for Question 19 is 2 marks)

4.

9 Work out the value of $(9 \times 10^{-6}) \times (3 \times 10^7)$
Give your answer in standard form.

.....
(Total for Question 9 is 2 marks)

Pearson Edexcel - Sample Paper 3 - (Calculator) Higher Tier

5.

8 Write 0.000068 in standard form.

.....
(Total for Question 8 is 1 mark)

Pearson Edexcel - Friday 6 November 2015 - Paper 2 (Calculator) Higher Tier

6.

16 (a) Write 640 000 000 in standard form.

.....
(1)

(b) Work out $(3 \times 10^7) \div (6 \times 10^4)$
Give your answer in standard form.

.....
(2)

.....
(Total for Question 16 is 3 marks)

Pearson Edexcel - Monday 8 June 2015 - Paper 2 (Calculator) Higher Tier

7.

15 (a) Work out the value of 25^{-3}

.....
(1)

(b) Work out the value of 350^3
Give your answer in standard form.

.....
(2)

.....
(Total for Question 15 is 3 marks)

Pearson Edexcel - Friday 13 June 2014 - Paper 2 (Calculator) Higher Tier

8.

- 16 Work out the value of $(7.5 \times 10^4) \times (2.5 \times 10^3)$
Give your answer in standard form.

.....

(Total for Question 16 is 2 marks)

Pearson Edexcel - Wednesday 6 November 2013 - Paper 1 (Non-Calculator) Higher Tier

9.

- 14 (a) Write down the reciprocal of 5

.....
(1)

- (b) Evaluate 3^{-2}

.....
(1)

- (c) Calculate $9 \times 10^4 \times 3 \times 10^3$
Give your answer in standard form.

.....
(2)

(Total for Question 14 is 4 marks)

Pearson Edexcel - Friday 8 November 2013 - Paper 2 (Calculator) Higher Tier

10.

- 19 (a) Write 7.8×10^{-4} as an ordinary number.

.....
(1)

- (b) Write 95 600 000 as a number in standard form.

.....
(1)

(Total for Question 19 is 2 marks)

Pearson Edexcel - Thursday 28 February 2013 - Paper 1 (Non-Calculator) Higher Tier

11.

16 (a) Write 8.2×10^5 as an ordinary number.

.....
(1)

(b) Write 0.000 376 in standard form.

.....
(1)

(c) Work out the value of $(2.3 \times 10^{12}) \div (4.6 \times 10^9)$
Give your answer in standard form.

.....
(2)

(Total for Question 16 is 4 marks)

Pearson Edexcel - Friday 2 March 2012 - Paper 3 (Non-Calculator) Higher Tier

12.

14. (a) Write 6.43×10^5 as an ordinary number.

.....
(1)

(b) Work out the value of $2 \times 10^7 \times 8 \times 10^{-12}$
Give your answer in standard form.

.....
(2)

(Total 3 marks)

Pearson Edexcel - Wednesday 9 November 2011 - Paper 3 (Non-Calculator) Higher Tier

13.

13. (a) Work out the value of $(6 \times 10^8) \times (4 \times 10^7)$

Give your answer in standard form.

.....
(2)

- (b) Work out the value of $(6 \times 10^8) + (4 \times 10^7)$

Give your answer in standard form.

.....
(2)

.....
(Total 4 marks)

Pearson Edexcel - Friday 10 June 2011 - Paper 4 (Calculator) Higher Tier

14.

19. The surface area of Earth is $510\,072\,000 \text{ km}^2$.
The surface area of Jupiter is $6.21795 \times 10^{10} \text{ km}^2$.

The surface area of Jupiter is greater than the surface area of Earth.

How many times greater?

Give your answer in standard form.

.....
(Total 3 marks)

Pearson Edexcel - Friday 12 November 2010 - Paper 4 (Calculator) Higher Tier

15.

17. (a) Write 82 500 000 in standard form.

..... (1)

(b) Work out $(5.2 \times 10^{-7}) \times (2.8 \times 10^{-9})$

Give your answer in standard form.

..... (2)

(Total 3 marks)

Pearson Edexcel - Friday 11 June 2010 - Paper 4 (Calculator) Higher Tier

16.

18. (a) Write 15 500 in standard form.

..... (1)

(b) Write 2.48×10^{-3} as an ordinary number.

..... (1)

(c) Work out the value of

$$24\,500 + (1.25 \times 10^{-4})$$

Give your answer in standard form.

..... (2)

(Total 4 marks)

Pearson Edexcel - Thursday 5 November 2009 - Paper 3 (Non-Calculator) Higher Tier

17.

13. (a) Write in standard form 213 000

.....
(1)

(b) Write in standard form 0.00123

.....
(1)

(Total 2 marks)

OCR GCSE – Tuesday 3 November 2020 – Paper 4 (Calculator) Higher Tier

18.

1 (a) Write these numbers in standard form.

(i) 6500

(a)(i) [1]

(ii) 0.0584

(ii) [1]

(b) Work out $(4.2 \times 10^5) \times (1.8 \times 10^{-2})$, giving your answer in standard form.

(b) [1]

19.

2 Use the formula $F = \frac{s}{\sqrt{tm}}$ to find the value of F when

$$s = 5.8 \times 10^6$$

$$t = 4.1 \times 10^8$$

$$m = 3.7 \times 10^{-2}$$

Give your answer in standard form, correct to 2 significant figures.

..... [4]

OCR GSCE – Thursday 6 June 2019 – Paper 5 (Non-Calculator) Higher Tier

20.

- 1 Work out $(2 \times 10^3) \times (4 \times 10^4)$, giving your answer in standard form.

..... [2]

OCR GSCE – Tuesday 11 June 2019 – Paper 6 (Calculator) Higher Tier

21.

- 2 Tom researches the weights of plant seeds.
- One poppy seed weighs 3×10^{-4} grams.
 - 250 pumpkin seeds weigh 21 grams.
 - One sesame seed weighs 3.64×10^{-6} kilograms.

Write the three types of seed in order according to the weight of one seed.
Write the lightest type of seed first.
You must show how you decide.

..... [4]
lightest

OCR GCSE – Thursday 8 November 2018 – Paper 5 (Non-Calculator) Higher Tier

22.

1 Work out.

(a) $\sqrt[3]{64} \times 2^{-1}$

(a) [2]

(b) $4.3 \times 10^5 + 3.8 \times 10^4$
Give your answer in standard form.

(b) [3]

OCR GSCE – Monday 12 November 2018 – Paper 6 (Calculator) Higher Tier

23.

3 A newborn baby has an approximate mass of 3.5 kilograms.

A human cell has an approximate mass of 2.7×10^{-11} grams.

Use these values to estimate the number of human cells in a newborn baby.
Give your answer in standard form, correct to 2 significant figures.

..... [5]

24.

1 (a) Calculate.

$$\frac{3}{5} + \frac{5}{8}$$

Give your answer as a mixed number in its simplest form.

(a) [3]

(b) Work out.

$$5 \times 10^4 - 1.6 \times 10^3$$

Give your answer in standard form.

(b) [3]

25.

- 5 A company makes sweets.
The sweets are put into packets.

Here are some facts.

1.47×10^7 sweets are made every day
--

3.5×10^5 packets of sweets are produced every day
--

- (a) Calculate the mean number of sweets in one packet.

(a) [2]

- (b) Sweets are made on 288 days each year.

Calculate the number of sweets made each year.
Give your answer in standard form.

(b) [3]

- (c) The company has 152 machines making the sweets.
Each machine operates for 15 hours each day.

- (i) Calculate the number of sweets made by one machine each hour.
Give your answer as an ordinary number correct to the nearest 10.

(c)(i) [3]

- (ii) State one assumption you have made in part (c)(i).

.....
..... [1]

OCR GSCE – Tuesday 13 June 2017 – Paper 6 (Calculator) Higher Tier

26.

- 1 This table shows the populations of the four countries of the UK in 2012. All values are given correct to 3 significant figures.

Country	Population
England	5.35×10^7
Wales	3.07×10^6
Scotland	5.31×10^6
Northern Ireland	1.82×10^6

- (a) Write the population of England as an ordinary number.

(a) [1]

- (b) Work out the total population of Wales, Scotland and Northern Ireland. Give your answer in standard form.

(b) [2]

- (c) The total population of the UK is predicted to reach 73.3 million in 2037.

Calculate the predicted percentage increase in the UK population from 2012 to 2037. Give your answer correct to 2 significant figures.

(c)% [4]

AQA GCSE – Thursday 4 June 2020 – Paper 2 (Calculator) Higher Tier

27.

3 Circle the number that is written in standard form.

[1 mark]

0.9×10^{-3}

$6 \times 10^{0.5}$

5.2×10^{-4}

12×10^7

AQA GCSE – Tuesday 21 May 2019 – Paper 1 (Non - Calculator) Higher Tier

28.

AQA GCSE – Tuesday 21 May 2019 – Paper 1 (Non - Calculator) Higher Tier

5 (a) Write 0.00097 in standard form.

[1 mark]

Answer _____

5 (b) Work out $\frac{3 \times 10^5}{4 \times 10^3}$

Give your answer as an ordinary number.

[2 marks]

Answer _____

AQA GCSE – Thursday 8 November 2018 – Paper 2 (Calculator) Higher Tier

29.

12 Work out $\frac{9.12 \times 10^{10}}{3.2 \times 10^4}$

Give your answer in standard form.

[2 marks]

Answer _____

AQA GCSE – Thursday 7 June 2018 – Paper 2 (Calculator) Higher Tier

30.

2 Circle the number that is in standard form.

[1 mark]

0.25×10^4

6×10^7

38×10^{-3}

$4 \times 10^{\frac{1}{2}}$

AQA GCSE – Thursday 2 November 2017 – Paper 1 (Non - Calculator) Higher Tier

31.

2 What is 800 million in standard form?

Circle your answer.

[1 mark]

800×10^6

8×10^8

8×10^9

0.8×10^{10}

AQA GCSE – Wednesday 25 May 2017 – Paper 1 (Non - Calculator) Higher Tier

32.

13 Write the number six million five thousand two hundred in standard form.

[2 marks]

Answer _____

AQA GCSE – Thursday 8 June 2017 – Paper 2 (Calculator) Higher Tier

33.

11 Write these numbers in **descending** order.

9563

9.56×10^3

9.56×3^{10}

[2 marks]

Answer _____ , _____ , _____

AQA GCSE – Sample Paper 1 (Non - Calculator) Higher Tier

34.

15 $a \times 10^4 + a \times 10^2 = 24\,240$ where a is a number.

Work out $a \times 10^4 - a \times 10^2$

Give your answer in standard form.

[2 marks]

Answer _____

AQA GCSE – Sample Paper 2 (Calculator) Higher Tier

35.

12 $R = \frac{x^2}{y}$

$$x = 3.6 \times 10^5$$

$$y = 7.5 \times 10^4$$

Work out the value of R .

Give your answer in standard form to an appropriate degree of accuracy.

[3 marks]

Answer _____