

SPM

MATHEMATICS

Paper 1
2015 – 2019

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1 - (1449-2015-Paper 1-Q1) - Numbers

Round off 89 831 correct to three significant figures.

Bundarkan 89 831 betul kepada tiga angka bererti.

- A 898 C 89 800
B 899 D 89 900

2 - (1449-2015-Paper 1-Q2) - Numbers

Express 0.00596 in standard form.

Ungkapkan 0.00596 dalam bentuk piawai.

- A 5.96×10^3 C 5.96×10^{-2}
B 5.96×10^2 D 5.96×10^{-3}

3 - (1449-2015-Paper 1-Q3) - Numbers

An electronic factory produces 5×10^3 chips in a minute.

If the factory is operating 16 hours a day, calculate the total number of chips produced by the factory in a day.

Sebuah kilang elektronik menghasilkan 5×10^3 cip dalam masa satu minit.

Jika kilang itu beroperasi 16 jam sehari, kira jumlah bilangan cip yang dihasilkan oleh kilang itu dalam sehari.

- A 2.1×10^4 C 3.0×10^6
B 8.0×10^4 D 4.8×10^6

4 - (1449-2015-Paper 1-Q5) - Numbers

Convert 10000110_2 into a number in base eight.

Tukarkan 10000110_2 kepada satu nombor dalam asas lapan.

- A 26_8 C 206_8
B 42_8 D 402_8

5 - (1449-2015-Paper 1-Q6) - Numbers

$$10011_2 - 1110_2 =$$

- A 101_2 C 10001_2
B 1101_2 D 10101_2

6 - (1449-2016-Paper 1-Q1) - Numbers

200.7×10^{11} is written as 2.007×10^q in the standard form.

State the value of q .

200.7×10^{11} ditulis sebagai 2.007×10^q dalam bentuk piawai.

Nyatakan nilai q .

- | | |
|-------------|-------------|
| A 9 | C 12 |
| B 10 | D 13 |

7 - (1449-2016-Paper 1-Q2) - Numbers

Find the product of 0.1987 and 0.3.

Round off the answer correct to two significant figures.

Cari hasil darab bagi 0.1987 dan 0.3.

Bundarkan jawapan betul kepada dua angka bererti.

- | | |
|----------------|---------------|
| A 0.060 | C 0.06 |
| B 0.059 | D 0.05 |

8 - (1449-2016-Paper 1-Q3) - Numbers

$$3.17 \times 10^{-8} - 1.20 \times 10^{-9} =$$

- A** 1.97×10^{-9}
B 3.05×10^{-9}
C 1.97×10^{-8}
D 3.05×10^{-8}

9 - (1449-2016-Paper 1-Q5) - Numbers

State the value of digit 4 in the number 33421_5 in base ten.

Nyatakan nilai digit 4 bagi nombor 33421_5 dalam asas sepuluh.

- | | |
|--------------|--------------|
| A 500 | C 300 |
| B 400 | D 100 |

10 - (1449-2017-Paper 1-Q1) - Numbers

Round off 0.02886 correct to three significant figures.

Bundarkan 0.02886 betul kepada tiga angka bererti.

- A** 0.028
B 0.029
C 0.0288
D 0.0289

ANSWERS

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1 - (1449-2015-Paper 1-Q1) - Numbers

C $89 \overset{\uparrow}{8}31 = 89\ 800$

Digit 8 remains unchanged since the next digit, 3 is less than 5. All the digits on the right hand side of 8 are changed to zero.

2 - (1449-2015-Paper 1-Q2) - Numbers

D $0.00596 = 5.96 \times 10^{-3}$

3 - (1449-2015-Paper 1-Q3) - Numbers

D $16 \text{ hours} = 16 \times 60 \text{ minutes}$
 $= 960 \text{ minutes}$

Total number of chips = $5 \times 103 \times 960$
 $= 4.8 \times 10^6$

4 - (1449-2015-Paper 1-Q5) - Numbers

C $000_2 = 0_8, 001_2 = 1_8, 010_2 = 2_8,$
 $011_2 = 3_8, 100_2 = 4_8, 101_2 = 5_8,$
 $110_2 = 6_8, 111_2 = 7_8,$
 $10000110_2 = 206_8$

5 - (1449-2015-Paper 1-Q6) - Numbers

A
$$\begin{array}{r} \overset{2}{0} \overset{2}{0} 11_2 \\ - 1 \ 100_2 \\ \hline 00 \ 101_2 \end{array}$$

6 - (1449-2016-Paper 1-Q1) - Numbers

D $200.7 \times 10^{11} = 2.007 \times 10^2 \times 10^{11}$
 $= 2.007 \times 10^{13}$
 $q = 13$

7 - (1449-2016-Paper 1-Q2) - Numbers

A $0.1987 \times 0.3 = 0.05961$
 $= 0.060$ (2 significant figures)

8 - (1449-2016-Paper 1-Q3) - Numbers

D $(3.17 \times 10^{-8}) - (0.120 \times 10^1 \times 10^{-9})$
 $= (3.17 \times 10^{-8}) - (0.120 \times 10^{-8})$
 $= (3.17 - 0.120) \times 10^{-8}$
 $= 3.05 \times 10^{-8}$

9 - (1449-2016-Paper 1-Q5) - Numbers

D The value of digit 4 = 4×5^2
 $= 4 \times 25$
 $= 100$