

8300

## GCSE MATHEMATICS

Foundation tier – Questions by Topic

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Number

Rounding integers

v1.0

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Name \_\_\_\_\_

### Materials

For this paper you must have:

- Mathematical instruments

### Information

- The marks for questions are shown in brackets

### Advice

- In all calculations, show clearly how you work out your answer

For questions 1 to 15 you must **NOT** use a calculator.



**Q1.**

Here is a list of four numbers.

6.92

7.27

7.18

7.14

Use **one** number from the list to complete each statement.

The number closest in value to 7 is \_\_\_\_\_

The number that rounds to 7.2 to 1 decimal place is \_\_\_\_\_

**(Total 2 marks)**

**Q2.**

Here is a set of four number cards.

5

4

7

2

The cards show the number 5472.

(a) Write down the number 5472 in words.

**(1)**

(b) Write down the smallest number you can make using all four cards.

Answer

**(1)**

(c) Write down the largest **odd** number you can make using all four cards.

Answer

**(2)**

(d) Write the number 5472 to the nearest hundred.

**(1)**

**(Total 5 marks)**

**Q3.**

Here are four number cards.

5

2

4

7

(a) Write the number 5247 in words.

(1)

(b) Write the number 5247 to the nearest hundred.

(1)

(c) What is the largest number you can make using all four cards?

(1)

(d) What is the smallest **even** number you can make using all four cards?

(2)

**(Total 5 marks)**

**Q4.**

Here are four number cards.

6

2

1

7

(a) Write the number 6217 in words.

(1)

(b) Write the number 6217 to the nearest 10.

(1)

(c) Use all **four** cards to show the smallest possible number.

(1)

(d) Use all **four** cards to show a number with a value as close to 4000 as possible.

(1)

**(Total 4 marks)**

**Q5.**

- (a) Write the number 3840 in words. (1)
- (b) Write the number five thousand and twelve in figures. (1)
- (c) What is the value of the digit 4 in the number 8462? (1)
- (d) Write the number 2684 correct to the nearest 1000. (1)
- (e) Work out  $500 - 358$  (2)
- (Total 6 marks)**

**Q6.**

- (a) Write 1607 in words. (1)
- (b) What is the value of the digit 5 in 13 058? (1)
- (c) Round 17 809 to the nearest thousand. (1)
- (Total 3 marks)**

**Q7.**

Three **whole** numbers are each rounded to the nearest 10  
The sum of the rounded numbers is 70  
Work out the **maximum** possible sum for the original three numbers. (Total 2 marks)

**Q8.**

By rounding each number to the nearest 10,  
$$\begin{array}{r} 61 \times 47 \\ \hline 102 \end{array}$$
  
estimate the answer to  
You **must** show your working. (Total 2 marks)

**Q9.**

By rounding each number to the nearest 10, estimate the value of  $31 \times 18$  (Total 3 marks)

**Q10.**

By rounding each number to the nearest 10, estimate the answer to  
$$\begin{array}{r} 78 \times 11.6 \\ \hline 39 \end{array}$$
  
You **must** show your working. (Total 3 marks)

**Q11.**

By rounding each number to the nearest 10, estimate the value of  $262 \div 19.8$  (Total 2 marks)

**Q12.**

Sam, Carl and Erik share 40 sweets.

Erik gets the largest share.

What is the **smallest** possible number of sweets that Erik could get?

**(Total 2 marks)**

**Q13.**

$$\begin{array}{r} 29.15 + 83.47 \\ \hline 9.82 \end{array}$$

Freddie tries to work out

His answer is 37.65

By rounding each number to the nearest 10, show that his answer is incorrect.

**(Total 3 marks)**

**Q14.**

A travel company is taking some passengers on a trip.

They can use coaches or minibuses.

Each coach can carry 53 passengers.

Each minibus can carry 12 passengers.

The passengers going on the trip would exactly fill 3 coaches.

If the company uses only minibuses, how many will they need?

**(Total 4 marks)**

**Q15.**

Coaches take people to a festival.

Each coach can take 50 people.

(a) From one city there are 820 people.

How many coaches are needed?

**(3)**

(b) From a different city 13 coaches are needed.

Each coach costs £450 to hire.

Work out the total cost of hiring 13 coaches.

**(3)**

**(Total 6 marks)**

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For the rest of the questions, you may use a calculator.



**Q16.**

Round 2445 to the nearest 100

**(Total 1 mark)**

**Q17.**

Round 37 to the nearest 10

**(Total 1 mark)**

**Q18.**

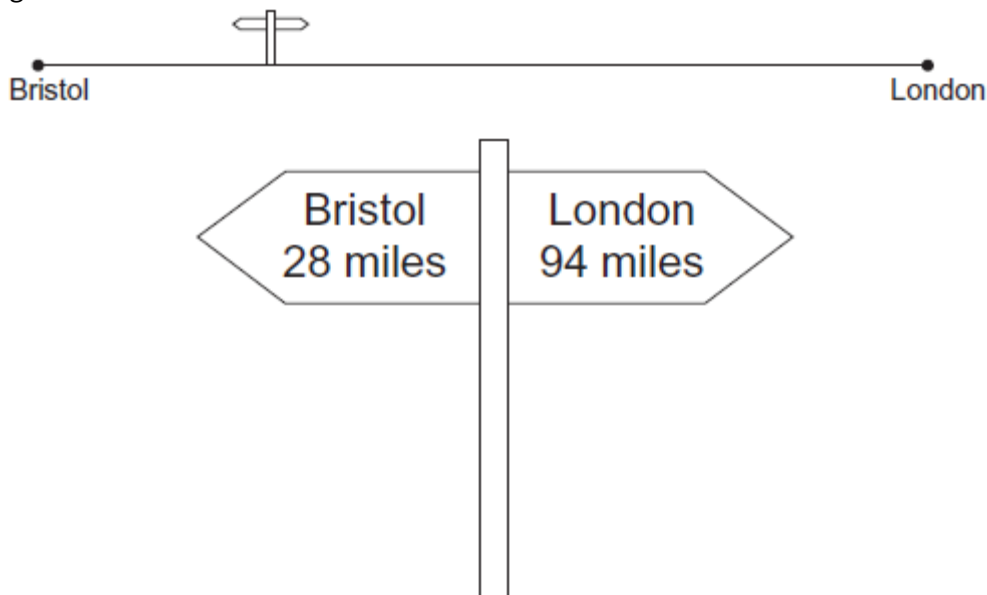
A number,  $x$ , is 30 when rounded to the nearest 10

Work out the value of the square root of the least possible value of  $x$ .

**(Total 2 marks)**

**Q19.**

A straight road connects Bristol and London.



- (a) Use the sign to work out the distance from Bristol to London.

(2)

- (b) How much further is it to London than to Bristol from the sign?  
Give your answer to the nearest 10 miles.

(3)

**(Total 5 marks)**

**Q20.**

Connor is estimating the answer to  $385 + 1479$

- (a) He rounds each number to the nearest 10  
Work out his estimate.

(2)

- (b) Connor says,  
“My estimate will be more than the exact answer.”  
How does he know this **without working out the exact answer**?

(1)

**(Total 3 marks)**

**Q21.**

These cars are for sale.



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- (a) Which car is the cheapest?

(1)

- (b) The price of each car is rounded to the nearest £100.  
Which price changes by the **greatest** amount?  
You **must** show your working.

(3)

**(Total 4 marks)**