

Negative Numbers

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **24**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 Work out

(a) $-7 + 3$

.....
(1)

(b) $2 - 9$

.....
(1)

(c) $-4 - (-10)$

.....
(1)

(d) -8×3

.....
(1)

(e) $-36 \div -9$

.....
(1)

(Total for Question 1 is 5 marks)

- 2** A supermarket has four freezers, A, B, C and D.
The table shows the temperature inside each freezer at 8 am.

Freezer	Temperature
A	-18°C
B	-21°C
C	-15°C
D	-24°C

- (a) Which freezer was the coldest?

.....
(1)

- (b) The temperature in the shop was 19°C .
How many degrees colder than the shop was freezer B?

..... $^{\circ}\text{C}$
(1)

- (c) The door of freezer C was left open.
The temperature inside freezer C went up by 3°C every hour for 4 hours.
Work out the temperature inside freezer C after the 4 hours.

..... $^{\circ}\text{C}$
(1)

(Total for Question 2 is 3 marks)

- 3 The number -2 is exactly halfway between -9 and another number.
Work out the other number.

.....
(1)

(Total for Question 3 is 1 mark)

- 4 Here are some numbers.

-5 3 -2 4 -1

Find the two numbers from the list that have the smallest product.

.....
(2)

(Total for Question 4 is 2 marks)

- 5 Work out $(-2)^3 + (-4)^2$

.....
(2)

(Total for Question 5 is 2 marks)

- 6 Find the value of $3x - 2y$ when $x = -2$ and $y = -5$

.....
(2)

(Total for Question 6 is 2 marks)

- 7 At 6 am the temperature was -4°C .
By midday the temperature had risen by 11°C .
By midnight the temperature had fallen by 15°C from its midday value.
Work out the temperature at midnight.

..... $^{\circ}\text{C}$
(2)

(Total for Question 7 is 2 marks)

- 8 Write down two numbers that multiply to give -12 and add to give 1

.....
(2)

(Total for Question 8 is 2 marks)

- 9 Kira says,
‘ -6 is bigger than -2 because 6 is bigger than 2’

Explain why Kira is wrong.

(1)

(Total for Question 9 is 1 mark)

- 10 The table shows the balance of four bank accounts at the start and at the end of one month.
A negative balance means the account is overdrawn.

Account	Balance at start of month	Balance at end of month
P	$-\pounds 45$	$\pounds 120$
Q	$\pounds 30$	$-\pounds 85$
R	$-\pounds 160$	$-\pounds 20$
S	$-\pounds 75$	$\pounds 95$

For which account did the balance change by the greatest amount?
You must show how you get your answer.

.....

(2)

(Total for Question 10 is 2 marks)

11 Here are five number cards.

6	-3	-8	2	-1
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- (a) Write a card in each of the first two boxes so that the answer is the **largest** possible.

Write the answer in the last box.

	-		=	
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(1)

- (b) Write a card in each of the first two boxes so that the answer is the **largest** possible.

Write the answer in the last box.

	×		=	
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(1)

(Total for Question 11 is 2 marks)
