Adding and Subtracting Negative Numbers - Worksheet

Skill

Group A - Adding and subtracting with negative numbers

Work out the answer to each calculation:

1) $2 - 3$ **2)** $3 - 2$ **3)** $-2 - 3$

4) $-3 - 2$ **5)** $-2 + 3$ **6)** $-3 + 2$

7) $8 - 5$ **8)** $5 - 8$ **9)** $-8 - 5$

10) $-5 - 8$ **11)** $-8 + 5$ **12)** $-5 + 8$

Group B - Adding and subtracting with negative numbers (double signs)

Work out the answer to each sum or difference:

1) $6 + (-2)$ **2)** $6 - (-2)$ **3)** $0 + (-4)$

4) $0 - (-4)$ **5)** $2 + (-5)$ **6)** $2 - (-5)$

7) $4 + (-4)$ **8)** $4 - (-4)$ **9)** $(-6) + (-2)$

10) $(-6) - (-2)$ **11)** $(-4) + (-4)$ **12)** $(-4) - (-4)$

Group C - Adding and subtracting with negative numbers (mixed operations)

Determine the value of each calculation:

1) $10 + 4 - 6$ **2)** $10 - 4 + 6$ **3)** $8 + 3 - 15$

4) $10 - 4 - 6$ **5)** $8 - 3 - 15$ **6)** $-8 - 3 - 15$

7) $-10 - 4 - 6$ **8)** $-10 + 4 + 6$ **9)** $-8 + 3 - 15$

10) $-8 + 3 + 15$ **11)** $-8 - 3 + 15$ **12)** $-10 + 4 - 6$

Adding and Subtracting Negative Numbers - Worksheet

Applied

1) At midnight, the temperature in London was -2°C.
At 9am, the temperature was 5°C.

By how many degrees did the temperature rise?

2) The temperature at 6pm is 8°C.
At 6am the next morning the temperature has dropped to -7°C.

How many degrees has the temperature fallen by?

3) In the magic squares below, the numbers in any column, row or diagonal add up to give the same answer.

Complete each magic square.

(a)

-3	-8	-1
-7		-5

(b)

-2		-1
3		
1		

4) **(a)** Write down a number that is 5 less than 2

(b) Write down a number that is 2 more than -9

Adding and Subtracting Negative Numbers - Exam Questions

1) **(a)** Calculate $4 - 7$

.....

(1)

(b) Calculate $12 + - 4$

.....

(1)

(c) Calculate $- 5 - 3$

.....

(1)

(d) Calculate $- 12 + 31$

.....

(1)

(4 marks)

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2) The temperature was recorded at different times on 1st January.

Time	Temperature
Midnight	-6°C
4am	-10°C
8am	-4°C
Noon	7°C
3pm	6°C
7pm	-2°C

(a) Write down the highest temperature.

..... $^{\circ}C$

(1)

(b) Write down the lowest temperature.

..... $^{\circ}C$

(1)

Adding and Subtracting Negative Numbers - Exam Questions

(c) Work out the difference in temperature between 4am and 8am.

.....°C
(1)

(d) Work out the difference in temperature between 3pm and 7pm.

.....°C
(1)

(e) At 11pm that day the temperature had fallen by 5°C from its value at 7pm.

Work out the temperature at 11pm.

.....°C
(1)
(5 marks)

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3) Below is an arithmetic number sequence:

y , -3 , -7 , x

(a) What is the term to term rule for this sequence?

.....
(1)

(b) Calculate the value of x.

.....
(1)

(c) Calculate the value of y.

.....
(1)
(3 marks)

Adding and Subtracting Negative Numbers - Answers

	Question	Answer
	Skill Questions	
Group A	Work out the answer to each calculation: **1)** $2 - 3$ **2)** $3 - 2$ **3)** $-2 - 3$ **4)** $-3 - 2$ **5)** $-2 + 3$ **6)** $-3 + 2$ **7)** $8 - 5$ **8)** $5 - 8$ **9)** $-8 - 5$ **10)** $-5 - 8$ **11)** $-8 + 5$ **12)** $-5 + 8$	 **1)** -1 **2)** 1 **3)** -5 **4)** -5 **5)** 1 **6)** -1 **7)** 3 **8)** -3 **9)** -13 **10)** -13 **11)** -3 **12)** 3
Group B	Work out the answer to each sum or difference: **1)** $6 + (-2)$ **2)** $6 - (-2)$ **3)** $0 + (-4)$ **4)** $0 - (-4)$ **5)** $2 + (-5)$ **6)** $2 - (-5)$ **7)** $4 + (-4)$ **8)** $4 - (-4)$ **9)** $(-6) + (-2)$ **10)** $(-6) - (-2)$ **11)** $(-4) + (-4)$ **12)** $(-4) - (-4)$	 **1)** 4 **2)** 8 **3)** -4 **4)** 4 **5)** -3 **6)** 7 **7)** 0 **8)** 8 **9)** -8 **10)** -4 **11)** -8 **12)** 0

Adding and Subtracting Negative Numbers - Answers

Group C	Determine the value of each calculation: **1)** $10 + 4 - 6$ **2)** $10 - 4 + 6$ **3)** $8 + 3 - 15$ **4)** $10 - 4 - 6$ **5)** $8 - 3 - 15$ **6)** $-8 - 3 - 15$ **7)** $-10 - 4 - 6$ **8)** $-10 + 4 + 6$ **9)** $-8 + 3 - 15$ **10)** $-8 + 3 + 15$ **11)** $-8 - 3 + 15$ **12)** $-10 + 4 - 6$	**1)** 8 **2)** 12 **3)** -4 **4)** 0 **5)** -10 **6)** -26 **7)** -20 **8)** 0 **9)** -20 **10)** 10 **11)** 4 **12)** -12

Adding and Subtracting Negative Numbers - Answers

	Question	Answer
	Applied Questions	
1)	At midnight, the temperature in London was $-2^{\circ}C$. At 9am, the temperature was $5^{\circ}C$. By how many degrees did the temperature rise?	$7^{\circ}C$
2)	The temperature at 6pm is $8^{\circ}C$. At 6am the next morning the temperature has dropped to $-7^{\circ}C$. How many degrees has the temperature fallen by?	$15^{\circ}C$
3)	In the magic squares below, the numbers in any column, row or diagonal add up to give the same answer. Complete each magic square. **a)** -3 | -8 | -1 | | -7 | | -5 **b)** -2 | | -1 3 | | 1 | |	**a)** -3 | -8 | -1 -2 | -4 | -6 -7 | 0 | -5 **b)** -2 | 5 | -1 3 | -2 | 1 1 | -1 | 2
4)	**a)** Write down a number that is 5 less than 2. **b)** Write down a number that is 2 more than -9.	**a)** -3 **b)** -7

Adding and Subtracting Negative Numbers - Mark Scheme

<table>
<tr><th></th><th>Question</th><th>Answer</th><th></th></tr>
<tr><td></td><td>Exam Questions</td><td></td><td></td></tr>
<tr><td>1) (a)</td><td>Calculate $4 - 7$</td><td>(a) -3</td><td>(1)</td></tr>
<tr><td>(b)</td><td>Calculate $12 +- 4$</td><td>(b) 8</td><td>(1)</td></tr>
<tr><td>(c)</td><td>Calculate $-5 - 3$</td><td>(c) -8</td><td>(1)</td></tr>
<tr><td>(d)</td><td>Calculate $-12 + 31$</td><td>(d) 19</td><td>(1)</td></tr>
<tr><td>2)</td><td>The temperature was recorded at different times on 1st January.
<table><tr><th>Time</th><th>Temperature</th></tr><tr><td>Midnight</td><td>-6°C</td></tr><tr><td>4am</td><td>-10°C</td></tr><tr><td>8am</td><td>-4°C</td></tr><tr><td>Noon</td><td>7°C</td></tr><tr><td>3pm</td><td>6°C</td></tr><tr><td>7pm</td><td>-2°C</td></tr></table></td><td></td><td></td></tr>
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<tr><td>(b)</td><td>Write down the lowest temperature.</td><td>(b) $-10^{\circ}C$</td><td>(1)</td></tr>
<tr><td>(c)</td><td>Work out the difference in temperature between 4am and 8am.</td><td>(c) $6^{\circ}C$</td><td>(1)</td></tr>
<tr><td>(d)</td><td>Work out the difference in temperature between 3pm and 7pm.</td><td>(d) $8^{\circ}C$</td><td>(1)</td></tr>
<tr><td>(e)</td><td>At 11pm that day the temperature had fallen by $5^{\circ}C$ from its value at 7pm.

Work out the temperature at 11pm.</td><td>(e) $-7^{\circ}C$</td><td>(1)</td></tr>
</table>

Adding and Subtracting Negative Numbers - Mark Scheme

3)	Below is an arithmetic number sequence: y , -3 , -7 , x		
(a)	What is the term to term rule for this sequence?	**(a)** Subtract 4 (or -4)	**(1)**
(b)	Calculate the value of x.	**(b)** $-7-4=-11$	**(1)**
(c)	Calculate the value of y.	**(c)** $-3+4=1$	**(1)**