

Multiplying and Dividing Negative Numbers - Worksheet

Skill

Group A - Multiplying negative numbers

Calculate:

1) 4×8

2) 8×4

3) $(-8) \times 4$

4) $8 \times (-4)$

5) $(-8) \times (-4)$

6) $8 \times 4 \times 4$

7) $8 \times 4 \times (-4)$

8) $8 \times (-4) \times (-4)$

9) $(-8) \times (-4) \times (-4)$

10) $(-4)^2$

11) $-(4)^2$

12) $(-4)^3$

Group B - Dividing negative numbers

Calculate:

1) $8 \div 4$

2) $4 \div 8$

3) $(-8) \div 4$

4) $8 \div (-4)$

5) $(-8) \div (-4)$

6) $8 \div 4 \div 4$

7) $8 \div 4 \div (-4)$

8) $8 \div (-4) \div (-4)$

9) $(-8) \div (-4) \div (-4)$

10) $8 \div (-4) \div 4$

11) $(-8) \div 4 \div 4$

12) $(-8) \div 4 \div (-4)$

Group C - Order of operations with negative numbers

Calculate:

1) $5 \times 3 + 2 \times 6$

2) $5 \times (-3) + 2 \times 6$

3) $5 \times (-3) + 2 \times (-6)$

4) $(-5) \times (-3) + 2 \times 6$

5) $(-5) \times (-3) + (-2) \times 6$

6) $(-5) \times (-3) + (-2) \times (-6)$

7) $10 \div 2 - 2 \times 1$

8) $10 \div (-2) - 2 \times 1$

9) $(-10) \div (-2) - 2 \times 1$

10) $10 \div 2 - 2 \times (-1)$

11) $10 \div (-2) - 2 \times (-1)$

12) $(-10) \div 2 - 2 \times (-1)$

Multiplying and Dividing Negative Numbers - Worksheet

Applied

1) Work out the missing number:

(a) $\boxed{} \times \boxed{3} = -15$

(b) $\boxed{-9} \times \boxed{} = 45$

(c) $\boxed{-3} \times \boxed{} \times \boxed{} = -6$

2) Write down the next two numbers in each of these number sequences:

(a) 3, - 6, 12, - 24, ... , ...

(b) 200, - 100, 50, - 25, ... , ...

(c) - 1000, 200, - 40, 8, ... , ..

3) Work out the missing numbers:

(a) $\boxed{} \div \boxed{-5} = 6$

(b) $\boxed{} \div \boxed{2} = -5$

(c) $\boxed{100} \div \boxed{} \div \boxed{} = -5$

4) Lewis has the following cards:

$\boxed{-2} \quad \boxed{-5} \quad \boxed{3} \quad \boxed{-7} \quad \boxed{5} \quad \boxed{6}$

(a) Lewis is going to choose two cards and multiply the numbers on them.
What cards should Lewis choose to make the largest possible answer?

(b) Lewis is going to choose two cards and multiply the numbers on them.
What cards should Lewis choose to make the smallest possible answer?

Multiplying and Dividing Negative Numbers - Exam Questions

- 1) (a) Calculate
 $(-63) \div (-7)$

.....
(1)

- (b) Calculate
 $12 \times (-4)$

.....
(1)
(2 marks)

-
- 2) (a) Calculate
 $(-5)^2$

.....
(1)

- (b) Calculate
 $(-2)^3$

.....
(1)
(2 marks)

-
- 3) $\div$ $-2 =$

Work out the missing number that would make the calculation correct.

.....
(1 mark)

Multiplying and Dividing Negative Numbers - Exam Questions

- 4) The table shows the temperature at midnight and midday on January 5th in four cities.

City	Temperature
Helsinki	-6°C
Berlin	3°C
Utrecht	-2°C
Rome	7°C

- (a) Write down the city with the lowest midnight temperature.

.....
(1)

- (b) How many times colder was Helsinki compared to Utrecht?

.....
(1)
(2 marks)

Multiplying and Dividing Negative Numbers - Answers

	Question	Answer
	Skill Questions	
Group A	Calculate: 1) 4×8 2) 8×4 3) $(-8) \times 4$ 4) $8 \times (-4)$ 5) $(-8) \times (-4)$ 6) $8 \times 4 \times 4$ 7) $8 \times 4 \times (-4)$ 8) $8 \times (-4) \times (-4)$ 9) $(-8) \times (-4) \times (-4)$ 10) $(-4)^2$ 11) $-(4)^2$ 12) $(-4)^3$	1) 32 2) 32 3) - 32 4) - 32 5) 32 6) 128 7) - 128 8) 128 9) - 128 10) 16 11) - 16 12) - 64
Group B	Calculate: 1) $8 \div 4$ 2) $4 \div 8$ 3) $(-8) \div 4$ 4) $8 \div (-4)$ 5) $(-8) \div (-4)$ 6) $8 \div 4 \div 4$ 7) $8 \div 4 \div (-4)$ 8) $8 \div (-4) \div (-4)$ 9) $(-8) \div (-4) \div (-4)$ 10) $8 \div (-4) \div 4$ 11) $(-8) \div 4 \div 4$ 12) $(-8) \div 4 \div (-4)$	1) 2 2) $\frac{1}{2}$ 3) - 2 4) - 2 5) 2 6) $\frac{1}{2}$ 7) $-\frac{1}{2}$ 8) $\frac{1}{2}$ 9) $-\frac{1}{2}$ 10) $-\frac{1}{2}$ 11) $-\frac{1}{2}$ 12) $\frac{1}{2}$

Multiplying and Dividing Negative Numbers - Answers

Group C	Calculate:	
	1) $5 \times 3 + 2 \times 6$	1) 27
	2) $5 \times (-3) + 2 \times 6$	2) - 3
	3) $5 \times (-3) + 2 \times (-6)$	3) - 27
	4) $(-5) \times (-3) + 2 \times 6$	4) 27
	5) $(-5) \times (-3) + (-2) \times 6$	5) 3
	6) $(-5) \times (-3) + (-2) \times (-6)$	6) 27
	7) $10 \div 2 - 2 \times 1$	7) 3
	8) $10 \div (-2) - 2 \times 1$	8) - 7
	9) $(-10) \div (-2) - 2 \times 1$	9) 3
	10) $10 \div 2 - 2 \times (-1)$	10) 7
	11) $10 \div (-2) - 2 \times (-1)$	11) - 3
	12) $(-10) \div 2 - 2 \times (-1)$	12) - 3

Multiplying and Dividing Negative Numbers - Answers

	Question	Answer
	Applied Questions	
1)	Work out the missing numbers a) $\times$ 3 $= -15$ b) -9 $\times$ $= 45$ c) -3 $\times$ $\times$ $= -6$	a) -5 b) -5 c) 2 and 1 (in any order) or -2 and -1 (in any order)
2)	a) Write down the next two numbers in each of these number sequences 3, -6, 12, -24, ... , ... b) 200, -100, 50, -25, ... , ... c) -1000, 200, -40, 8, ... , ...	a) 48, -96 b) 12.5, -6.25 c) $-\frac{8}{5}$, $\frac{8}{25}$
3)	a) Work out the missing numbers $\div$ -5 $= 6$ b) $\div$ 2 $= -5$ c) 100 $\div$ $\div$ $= -5$	a) -30 b) -10 c) -2 and 10 (in any order) or 2 and -10 (in any order)
4)	a) Lewis has the following cards -2 -5 3 -7 5 6 Lewis is going to choose two cards and multiply the numbers on them. What cards should Lewis choose to make the largest possible answer? b) Lewis is going to choose two cards and multiply the numbers on them. What cards should Lewis choose to make the smallest possible answer?	a) -7 and -5 b) -7 and 6

Multiplying and Dividing Negative Numbers - Mark Scheme

	Question	Answer											
	Exam Questions												
1) (a)	Calculate $(-63) \div (-7)$	(a) 9	(1)										
(b)	Calculate $12 \times (-4)$	(b) -48	(1)										
2) (a)	Calculate $(-5)^2$	(a) 25	(1)										
(b)	Calculate $(-2)^3$	(b) -8	(1)										
3)	÷ -2 = 9 Work out the missing number that would make the calculation correct.	-18	(1)										
4) (a)	The table shows the temperature at midnight and midday on January 5th in four cities.<table><tr><th>City</th><th>Temperature</th></tr><tr><td>Helsinki</td><td>-6°C</td></tr><tr><td>Berlin</td><td>3°C</td></tr><tr><td>Utrecht</td><td>-2°C</td></tr><tr><td>Rome</td><td>7°C</td></tr></table> Write down the city with the lowest midnight temperature.	City	Temperature	Helsinki	-6°C	Berlin	3°C	Utrecht	-2°C	Rome	7°C	(a) Helsinki	(1)
City	Temperature												
Helsinki	-6°C												
Berlin	3°C												
Utrecht	-2°C												
Rome	7°C												
(b)	How many times colder was Helsinki compared to Utrecht?	(b) $(-6) \div (-2)$ 3	(1)										

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