Integers

Addition and Subtraction Problems

Express each of the following as a single number.

a) $3 + 5$

b) $4 - 10$

c) $-1 - 4$

d) $-2 + 9$

e) $12 - 9 + 4 - 2$

f) $-8 - 4 + 4 - 3$

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1. Explain what Integer numbers are.

2. What is the rule for Adding and Subtracting Integers?

3. What is the rule for Multiplying and Dividing Integers?

Complete the following statements with

$$< , \quad > , \quad =$$

a) 12 [ ] -12

b) -2 [ ] 3

c) 0 [ ] -1

a) -11 [ ] -12

a) -6 [ ] -4

Multiplying and Dividing Problems

Express each of the following as a single number.

a) $-4\,(-1)$

b) $(-9) \times (-6)$

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

d) $(-12) \div (-2)$

e) $(-30) \div (5)$

f) $(-7)^2$

g) $3 - 8 + 7 \times (-2)$

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1. Aoife has €80 and writes a cheque for €120, what is her balance? _____
   Aoife then gets €50 into her account, what is her new balance? _____

2. A scuba driver is standing 22m above ground. He dives a total distance of 43m. How deep under water did he go? _____

3. The temperature in a freezer is -20 ℃. The temperature in the room is 9 ℃. What is the temperature difference between the freezer and the room?

4. Mark the following numbers onto a line graph. *(Draw line graph with ruler)*
   5, -4, 0, -2, 6, -8

Using the grid below,
what is the highest number you can finish with?
What is the lowest number you can finish with?
Note: You can only pass through each square once.

6	-8	-9	-7	+4	**Finish**
-7	-3	-6	-4	-2	
-5	-8	-10	-3	-6	
+6	+7	-9	-5	-8	
-1	-7	+5	-6	-8	
Start	+3	-4	-7	4	5

Integers

Addition and Subtraction Problems

Express each of the following as a single number.

a) 3 + 5 $\qquad$ = + 8

b) 4 – 10 $\qquad$ = - 6

c) -1 – 4 $\qquad$ = - 5

d) -2 + 9 $\qquad$ = + 7

e) 12 - 9 + 4 – 2 $\qquad$ = + 5

f) - 8 - 4 + 4 – 3 $\qquad$ = -11

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1. Explain what Integer numbers are.
    A set of positive and negative whole numbers. Includes zero.
2. What is the rule for Adding and Subtracting Integers?
    When signs are the same, add the numbers and keep the sign
    When the signs are different, keep the sign of the bigger number and subtract the bigger number from the smaller number.
3. What is the rule for Multiplying and Dividing Integers?
    Like signs give plus
    Unlike signs give a minus

Complete the following statements with
< ,   > ,   =

a) 12 $\boxed{>}$ -12

b) -2 $\boxed{<}$ 3

c) 0 $\boxed{>}$ -1

a) -11 $\boxed{>}$ -12

a) -6 $\boxed{<}$ -4

Multiplying and Dividing Problems

Express each of the following as a single number.

a) -4 (-1) $\qquad$ = + 4

b) (- 9) x (- 6) $\qquad$ = + 54

c) (- 5) x (4) $\qquad$ = - 20

d) (- 12) ÷ (- 2) $\qquad$ = + 6

e) (- 30) ÷ (5) $\qquad$ = - 6

f) $(-7)^2$ $\qquad$ = 49

g) 3 – 8 + 7 x (-2) $\qquad$ = - 19

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1. Aoife has €80 and writes a cheque for €120, what is her balance? __- €40_____
    Aoife then gets €50 into her account, what is her new balance? _____+ €10 _____

2. A scuba driver is standing 22m above ground. He dives a total distance of 43m. How deep under water did he go? _____21m underwater_____

3. The temperature in a freezer is -20 ℃. The temperature in the room is 9 ℃. What is the temperature difference between the freezer and the room? 29 ℃

4. Mark the following numbers onto a line graph. *(Draw line graph with ruler)*
    5, -4, 0, -2, 6, -8

Using the grid below,
what is the highest number you can finish with?
What is the lowest number you can finish with?
Note: You can only pass through each square once.

6	-8	-9	-7	+4	**Finish**
-7	-3	-6	-4	-2	
-5	-8	-10	-3	-6	
+6	+7	-9	-5	-8	
-1	-7	+5	-6	-8	
Start	+3	-4	-7	4	5