

Dear Parents / Students

Due to the unprecedented situation, Knowledgeplus Training center is mobilized and will keep accompanying and supporting our students through this difficult time. Our Staff will be continuously, sending notes and exercises on a weekly basis through what's app and email. Students are requested to copy the notes and do the exercises on their copybooks. The answers to the questions below will be made available on our website on [knowledgeplus.mu/support.php](http://knowledgeplus.mu/support.php). Please note that these are extra work and notes that we are providing our students and all classes will be replaced during the winter vacation. We thank you for your trust and are convinced that, together, we will overcome these troubled times.

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## **Knowledgeplus Training Center**

### **Mathematics**

### **Grade 7**

### **Week 3**

### **Notes and Exercise**

**Note:(All the Notes, Examples and Exercise are on the photos**

**Note: (Please copy all the Notes, Examples and Exercises on your copy book).**

Mathematics Grade 7 week 3

Order of Operation

Case 1 Example 1

$$8 + 7 - 6$$

Solution

$$8 + 7 = 15$$

$$15 - 6 = 9$$

Case 2 Example

$$6 \times 4 \div 2$$

Solution

$$6 \times 4 = 24$$

$$24 \div 2 = 12$$

Case 3 Example

$$8 + 7 - 6 \times 4$$

Solution

$$8 + 7 = 15$$

$$6 \times 4 = 24$$

$$15 - 24 = -9$$

**Note: (Please copy all the Notes, Examples and Exercises on your copy book).**

BODMAS stands for:

B - Bracket (calculation inside brackets come first)

O - Orders (numbers involving powers or square roots)

Division } (Division and multiplication rank equally)  
 Multiplication }

Addition } (Addition and Subtraction rank equally)  
 Subtraction }

Example 1

Calculate

(a)  $15 \div 3 \times 4 \div 2$     (b)  $8 - 2 + 5 \times 3$     (c)  $16 + 2^2 \times 5 - 36 \div 7$

Solution

(a)  $15 \div 3 \times 4 \div 2 = \cancel{15} \times 4 \div 2$      $15 \div 3$   
 $= \underline{5} \times 4 \div 2$   
 $= \underline{20} \div 2$   
 $= 10$

Division is performed  
 Multiplication is performed  
 Division is performed.

(b)  $8 - 2 + 5 \times 3 = 5 \times 3$   
 $= \cancel{8} - 2 + \underline{15}$   
 $= \underline{6} + 15$

Multiplication is performed  
 Subtraction is performed  
 Addition is performed

(c)  $16 + 2^2 \times 5 - 36 \div 7 = 16 + 4 \times 5 - 36 \div 7$     Multiplicat and division is perform  
 $= 16 + \underline{20} - \underline{8}$     Addition is performed.  
 $= \underline{36} - 8$     Substraction is perform  
 $= 28$

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Example 2

Evaluate (a)  $2 \times (5-7) - 4 + 9$  (b)  $[(4+21) \div (5+3)] \times 2$

Solution

(a)  $2 \times (5-7) - 4 + 9 = 2 \times (-2) - 4 + 9$  The operation within bracket is performed first  
 $= -4 - 4 + 9$  Multiplication is performed  
 $= -8 + 9$  Subtraction is performed  
 $= 1$  Addition is performed

(b)  $[(4+21) \div (5+3)] \times 2 = 4+21 = 25$  (1) Inner Brackets is performed  
 $= 25 \div 8$  (2) Division within brackets is performed  
 $= 5+3$  (3) Addition within brackets is performed  
 $= 8 \times 2$  (4) Multiplication is performed

Example 3

Ishita brought 20 cookies at school to share with her friends for her birthday. She has two best friends to whom she gave 3 cookies each. She then gave 2 cookies to each of her five friends who bought her a gift. Write an expression for the number of cookies left and evaluate it.

Solution

Number of cookies left =  $20 - [(2 \times 3) + (5 \times 2)]$   
 $= 20 - (6 + 10)$   
 $= 20 - 16$   
 $= 4$

two friends → 3 cookies each  
 five friends → 2 cookies each

This means Ishita has 4 cookies left.

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### Exercise 1

Evaluate

(a)  $12 + 5 - 7$

(b)  $2 \times 4 - 6$

(b)  $8 + 6 \div 3 \times 4$

(d)  $11 \times 5 \div 5 \times 3$

(c)  $16 - 4 + 8 \div 2$

(f)  $24 \div 6 \times 12 \div 4$

(g)  $18 \div 3 \times 0 - 5$

(h)  $25 \div 5 \times 12 - 7$

(i)  $(-9) \times 2 \div 6 - 5$

(j)  $13 - 6 + 3 \times 11$

(k)  $13 + 1 - 9 \times 4 \div 6$

(l)  $8 \times 8 + 8 - 8 \div 8$

(m)  $(-3) + 7 - 4 \times (-10) \div 2$

(n)  $22 \div 2 \times 0 - 8 + 12$

(o)  $24 - 36 \div 3 - 4 \times 2$

(p)  $15 - 8 \div 4 + \sqrt{16}$

(q)  $50 \div 5^2 \times 3 + 10 - 6$

(r)  $2 \times 6^2 \div 9 - 12 + 28$

### Exercise 2

Find the value of

(a)  $7 + (9 - 5) \times 3$

(b)  $8 \times (10 \times 2) \div 4$

(c)  $12 \div 3 \times (4 + 7)$

(d)  $12 \div 3 \times (4 + 7)$

(e)  $[(1 + 17) \div 6] \times 5$

(f)  $(12 \times 4) \div 6 + 9$

(g)  $66 \div 6 \times (4 + 5) + 12$

(h)  $(5 \times 8) \div 4 \times (2 + 3)$

(i)  $[(-6) \times 3] \div (-9) \times 7 - 4$

(j)  $10 \div 4 + (10 - 8 \times 2 \div 2) \times 7$

(k)  $-24 - [4 - (0 - 8)]$

(l)  $[56 \div 8 \times (8 - 10)] + 15$

(4)

**Note: (Please copy all the Notes, Examples and Exercises on your copy book).**

Exercise 3 - Circle the correct answer

(a)  $1 \square + 2 \square + 3 \square + 4 = 6$ , what do the boxes represent  
 A. +, -, -    B. -, +, +    C. -, +, -    D. +, -, +

(b)  $3 - 5 + 2 =$  \_\_\_\_\_  
 A. 2    B. 0    C. 4    D. -4

(c)  $3 \times 2 + 4 \times 5 =$  \_\_\_\_\_  
 A. 20    B. 26    C. 50    D. 66

(d)  $-3 + 5 \times 2 =$  \_\_\_\_\_  
 A. 7    B. 4    C. 13    D. 16

(e)  $3^2 + 5 \times 6 =$  \_\_\_\_\_  
 A. -84    B. 39    C. -21    D. -24

4. Irfaan says that  $36 \div 3 + 6 = 4$ . Do you agree with the answer? Justify your answer.

5. Sonam says that  $5 + 4 \times 2^3 = 37$ . Do you agree with the answer? Justify your answer.