Symbols and Notations

SYMBOLS AND NOTATIONS

The questions can be based on

Blood Relations
Mathematical Operations (or Operator based questions)

1. **Blood Relations**

P x Q means P is the mother of Q

P + Q means P is the father of Q

P – Q means P is the son of Q

Which of the following means A is the Grandson of D ?

(1) A x C+D
(2) A +B+D
(3)D+B+A
(4) A-B-D

Explanation:

A x C+D means A is the mother of C and C is the father of D Grandchild of A

A+B+D means A is the father of B and B is the father of D. Hence D is the Grandchild of A

D+B+A means D is the father of B and B is the father of A. Here A is the Grand child of D, but we don't know whether he is the Grandson or Granddaughter of D

A-B-D means A is the son of B and B is the son of D. Hence, A is the Grandson of D

2. **Mathematical Operations**

IF '+' stands for '-' , '-' stands for 'x', 'x' stands for '÷'and '÷'stands for '+'then what is the value of 56x7÷13-11+15-8÷2-7?

(1)30
(2)45
(3)60
(4)90

Explanation:

Changing the symbols as given in the problem the above expression is

56÷7+13x11-15x8+2x7

Solving the BODMAS rule, we get 8+143-120+14=165-120=45

Exercise Questions

Direction: Study the following sequence carefully and answer the questions given below:

1. If '-' stands for 'x', 'x' stands for '+', '+'stands for '÷' and '÷' stands for '-',then what is the value of 9÷18x15+3-6x12 ?

(a)24 (b)30 (c)33 (d)42 (e)58

2. If $a\$b=a^2b^2-ab$, then $3\$8=$

(a)600 (b)552 (c)576 (d)625 (e)676

3. If $p\emptyset q=p^2+q^2-p-q$ and $p\Delta q=pq-p-q$,then$(6\emptyset 5)\Delta 5 =$

(a)200 (b)175 (c)195 (d)179 (e)225

4. If4©5=189 and 10©8=1512,then 6©9=

(a)945 (b)1148 (c)983 (d)764 (e)932

5. If’Δ’ means is less than’, ‘$’ means ‘is greater than’and £’means ‘is equal to’and given that aΔ b,c£d and c$b,then which of the following is true ?

(a)dΔa (b)b$d (c)a£c (d)aΔbΔc (e)aΔc

6. If ’x’means 'added to' ’÷’means 'multiplied by'; ’+’means 'subtracted from' and ‘-‘ means ‘divided by',then simplify 24+36-12x 8÷4= ?

(a)36 (b)53 (c)5 (d)20 (e)None of these

7. If A means ‘-‘,B means ‘÷’,C means ‘+’,and D means ‘x’,then 15B3C24A12D2 =?

(a)2 (b)5/9 (c)$-23^4/_9$ (d)34 (e)5

8. If ‘W’ means ÷,X means ‘+’,Y means ‘-‘ and Z means ‘x’ then 28Z3Y4x12W6=?

(a)27 (b)82 (c)39 (d)53 (e)11

9. If ‘+’means ‘÷’,÷means ‘x’ ,’x’ means ‘-‘ and ‘-‘ means ‘+’ ,then 10+2÷5-3÷4+2-1=?

(a)32 (b)50 (c)45 (d)120 (e)150

10. If 5@6=61 and 8@10=164,then 7@9=?

(a)125 (b)63 (c)130 (d)32 (e)95

Answer & Explanations

1. Ans (c)33. The given expression 9÷18x15+3-6x12. By converting the symbols according to the given definitions, we get 9-18+15÷3x6+12 solving this by BODMAS rule,we get the value as 33.

2. Ans (b)552. Given a$b=$a^2b^2$-ab –ab →3$8 = 3^2x8^2 – 3x8=9x64-24=576-24=552

3. Ans (c)195. 6Ø5 = 6^2+5^2-6-5=36+25-6-5=50 (6Ø5Δ 5 = 50Δ5 = 50x5-50-5**=** 195

4. Ans (a)945. 4^3+5^3=64+125=189=> 4©5, 10^3+8^3 =1000+512=1512=>10©8

Similarly, 6©9=6^3+9^3=216+729=945

5. Ans (a)aΔbΔc. aΔb means a<b, c$d means c>b, b<c, c£d means c=d therefore, a<b<c=d. So aΔbΔc is true=>a<b<c→ is true

6. Ans (b)53. 24-36÷12+8 x 4= 24-3 +32= 53.

7. Ans (e)5. 15÷3+24-12x2 , 5+24-24=5

8. Ans (b)82. 28x3-4+12÷6, 84-4+2 or 84+2-4=86-4=82

9. Ans (a)32. 10÷2x5+3x4÷2+1, 5x5+3x4÷2+1, 5x5+3x2+1, 25+6+1=32

10.Ans(c)130.5x5+6x6=25+36=61,8x8+10x10=64+100=164 so,7x7+9x9=49+81=130