Evaluate the following expression:

1. x = ++ y + 2y if y = 6.
2. b = a + + + + + a if a =10 initially
3. z = + + x + x + + If x = 10 initially
4. c = (a ++) \* d + a where a=5, d=15.
5. c=a - (b ++) \* (-- a) where a=5, b=3.
6. a + = a + ++ a if a=20.
7. J= --k + 2k + ( l = k, l ++) if k=20 initially.
8. P= P \* ++ j where j=22 and P= 3 initially.
9. x - y < z && y + z > x | | x – z < = y – x + z if x = 4, y = 7 and z = 10
10. y && ( y – z ) | | ! ( 2 y + z – x ) if x = 13, y = 4, z = 5

Construct logical expressions to represent the following conditions:

1. Weight is greater then equal to 115 but less than 125.
2. x is even.
3. Donation is in the range 4000-5000 or guest is 1.
4. Ch is in upper case.

(Where ASCII codes for uppercase characters are from 65 to 90)

1. Variable total is greater than or equal to final.
2. a is odd but less than 57
3. Either age is more than 70 or members are more than or equal to 8.
4. Grade is ‘B’ and exper is more than 3 years.

Given the following code fragment

int ch=20;

cout << + + ch<<”\n”<<ch<<”\n”;

1. What output does the above code fragment produce?
2. What is the effect of replacing ++ch with ch+1?
3. What is the order of evaluation in the following expressions?
4. a > 5 && b < c | | c<d
5. a<4 || d>e || !d<6
6. 4 \* 5 + 7 \* 2 – 8 \* 3 + 4 & & 4 / 2 – 1 + 4 | | 2- 4 | | 2- 4 + 6 \* 2
7. a > b | | b < d
8. x = = y && y < = m
9. a > b && b < c | | c < ! d + 3
10. C- A + B \* D

What will be the result of the following expression if a = 3, b = 6, c = 4, d = 2

a + b > c && b – c < d | | b + d > = a + c

Write the correspondind c++ expressions for the following mathematical expressions:

1) a2 + b2 +c2 2) p+q/(r+s)4 3) ut + 1 ft2

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What will be the result of the following if ans is 6 initially;

1) cout << ans = 8; 2) cout << ans = = 8;

Given that i = 4, j = 5, k = 4, what will be the result of following expressions?

1) i < k 2) i < j 3) i < = k 4) i = = j 5) i = = k

6) j > k 7) j > = i 8) j ! = i 9) j ! = k 10) j < = k

State why are following expressions invalid?

1) asm = 5100 | | val < 35 2) age > 70 && < 90 3) Income >= 5000 | |&& val <500

Given the values of a, b ,c evaluate the following expression:

(a > = b) | | ( ! (c = = b) && (c < a ))

Where 1) a = 10, b= 5, c = 11 2) a = 10, b= 10,c = 10 3) a = 9, b= 10,c = 2