W06-02-01

| | i | j | K |
|---|---|---|---|
| i=1, j=2, K | 1 | 2 | |
| K=i+j | 1 | 2 | 3 |
| i=i+(K**j) | 7 | 2 | 3 |
| j-i/2 | 7 | 3 | 3 |
| K=i%2 | 7 | 3 | 1 |
| i=(j+k)*3 | 12 | 3 | 1 |

W06-02-02

double X=1.0, y=2.0

| | X | y | Z |
|---|---|---|---|
| | 1.0 | 2.0 | |
| X=y+5.0 | 7.0 | 2.0 | |
| y=x%2.0 | 7.0 | 3.5 | |
| y=(x*9.0)+4.0 | 7.0 | 25.0 | |
| X=-0.5-y | -25.5 | 25.0 | |
| Z=x+y | -25.5 | 25.0 | -0.5 |

coding_ no1-03 Relational & Logical operators

x = 12 , y = 7, z = 12

1. x > y  12 > 7 true
2. x < z  12 < 12 false
3. x == z  12 == 12 true
4. x != y  12 != 7 true
5. !(2 * 5 >= y) || (5! = (5/3)) 2 * 5 >= 7 true, ! true → false
   5! = 1 true ∴ false || true → true
6. !(x < y) 12 < 7 false  !false → true
7. (x + y) > (2 * 2) (12 + 7) > (12 * 2) → 19 > 24 → false
8. (x % 2 == 0) || (y % 2 == 1) 12 % 2 = 0 → true
   7 % 2 = 1 → true true || true → true
9. (x > y) && (z < y) 12 > 7 → true 12 < 7 → false
   true && false → false

coding_wo6-01 short-hand Expression

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```
x = x - 4.0;
x = 6.5 * x;
x = x % (y + z * a);
x = x / (2.0 * x);
total = total + (price * quantity - discount);
x = x * (1 + rate / 100);
score = score - (penalty * (mistake + 1));
```

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```
x -= 4.0;
x *= 6.5;
x %= (y + z * a);
x /= (2.0 * x);
total += (price * quantity - discount);
x *= (1 + rate / 100);
score -= (penalty * (mistake + 1));
```

Coding_no6-05

A = -2 + 3 * 2 = -2 + (3 * 2) = -2 + 10 = 8 ✓

B = 10 / 2 * 3 = (10 / 2) * 3 = 5 * 3 = 15 ✓

C = 6 / 2 + 3 * (4 % 2) = 3 + 3 * (0) = 3 ✓

D = (5 + 2) * 15 % 4 = 105 % 4 = 1 ✓

E = 6 + 2 * 2 - 6 / 2 = 6 + 4 - 3 = 7 ✓

F = 5 + 3 * 2 - 8 / 4 + (6 % 5) = 5 + 6 - 2 + 1 = 9 + 1 = 10 ✓

G = (4 + 3) * 2 - 10 / (2 + 3) = 14 - 10 / 5 = 14 - 2 = 12 ✓

Coding_no6-06 a=5 b=2 x=3.0 y=4.5

int r1 = a++ * b + (int)y % 3 → 5 * 2 + (4 % 3) = 10 + 1 = 11 ✓

int r2 = (a > b) && ((int)x / b < 2) → (6 > 2) && ((3 / 2) < 2) → true && true → true ✓

float r3 = ++x * y - a / 2 → 4.0 * 4.5 - 6 / 2 → 18.0 - 3 → 15.0 ✓

float r4 = ((x += 1.5) > y) || (b-- > 0) → ((5 += 1.5) > 4.5) || (2 > 0)

→ true || true → true ✓