

W06-02-01

$i=1, j=2, k$

$k=i+j$

$i=i+(k*j)$

$j=i/2$

$k=i*2$

$i=(j+k)*3$

i j k

1 2

1 2 3

7 2 3

7 3 3

7 3 1

12 3 1

W06-02-02

double $x=1.0, y=2.0$

$x=y+5.0$

$y=x*2.0$

$y=(x*3.0)+4.0$

$x=-0.5-y$

$z=x+y$

x y z

1.0 2.0

7.0 2.0

7.0 3.5

7.0 25.0

-25.5 25.0

-25.5 25.0 -0.5

Coding_w06-03 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 , $!$ $\text{True} \rightarrow \text{False}$

$5! = 1$ True , $\text{False} || \text{True} \rightarrow \text{True}$ #

6. $!(x < y)$ | $12 < 7$ False ! $\text{False} \rightarrow \text{True}$ #

7. $(x+y) > (z*2)$ | $(12+7) > (12*2) \rightarrow 19 > 24 \rightarrow \text{False}$ #

8. $(x/2 == 0) || (y/2 == 1)$ | $12/2 = 0 \rightarrow \text{True}$

$7/2 = 1 \rightarrow \text{True}$ $\text{True} || \text{True} \rightarrow \text{True}$ #

9. $(x > y) \&\& (z < y)$ | $12 > 7 \rightarrow \text{True}$ $12 < 7 \rightarrow \text{False}$

$\text{True} \&\& \text{False} \rightarrow \text{False}$ #

Coding_w06-04 short-hand Expression

แบบสั้น

$$x = x - 4.0;$$

$$x = 6.5 * x;$$

$$x = x * (y + z * a);$$

$$x = x / (2.0 * x);$$

$$\text{total} = \text{total} + (\text{price} * \text{quantity} - \text{discount});$$

$$x = x * (1 + \text{rate} / 100);$$

$$\text{Score} = \text{score} - (\text{penalty} * (\text{mistake} + 1));$$

แบบยาว

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Coding - w06-05

$$A = -2 + 5 * 2 = -2 + (5 * 2) = -2 + 10 = 8$$

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

$$C = 6 / 2 + 3 * (4 / 2) = 3 + 3 * (2) = 3 + 6 = 9$$

$$D = (5 + 2) * 15 / 4 = 7 * 15 / 4 = 105 / 4 = 26.25$$

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

$$F = 5 + 3 * 2 - 8 / 4 + (6 / 5) = 5 + 6 - 2 + 1.2 = 9.2$$

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

Coding - w06-06 a=5 b=2 x=3.0 y=4.5

$$\text{int } r_1 = a + b + (\text{int}) y / 3 \rightarrow 5 + 2 + (4 / 3) = 7 + 1 = 8$$

$$\text{int } r_2 = (a > b) \&\& ((\text{int}) x / b < 2) \rightarrow (5 > 2) \&\& (3 / 2 < 2) \rightarrow \text{true} \&\& \text{true} \rightarrow \text{true}$$

$$\text{float } r_3 = 1 + x * y - a / 2 \rightarrow 1 + 3 * 4.5 - 5 / 2 \rightarrow 1 + 13.5 - 2.5 = 12$$

$$\text{float } r_4 = ((x + 1.5) > y) || (b > 0) \rightarrow ((5 + 1.5) > 4.5) || (2 > 0) \rightarrow \text{true} || \text{true} \rightarrow \text{true}$$