

## Coding - W06 - 04      short-hand Expression

~~MINIMUM~~  $x = x - 4.0;$

~~MAXIMUM~~  $x = 0.5 * x;$

~~MINIMUM~~  $x = x \% (y + z * a);$

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

~~MINIMUM~~  $total = total + (price * quantity - discount);$

~~MAXIMUM~~  $x = x^* (1 + rate / 100);$

~~MINIMUM~~  $score = score - (penalty + (mistake / 10));$

~~MINIMUM~~  $x -= 4.0;$

~~MAXIMUM~~  $x^* = 0.5;$

~~MINIMUM~~  $x \% = (y + z^* a);$

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

~~MINIMUM~~  $total += (price * quantity - discount);$

~~MAXIMUM~~  $x^* = (1 + rate / 100);$

~~MINIMUM~~  $score -= (penalty * (mistake + 1));$

coding - nob - 05

$$A = -2 + 5 * 2 = -2 + (5 \times 2) = -2 + 10 = 8 \quad \text{X}$$

$$B = 10 / 2 * 3 = (10 \div 2) \times 3 = 5 \times 3 = 15 \quad \text{X}$$

$$C = 6 / 2 + 3 * (4 \% 2) = 3 + 3 * (0) = 3 \quad \text{X}$$

$$D = (5 + 2) * 15 \% 4 = 105 \% 4 = 1 \quad \text{X}$$

$$E = 6 + 2 * 2 - 6 / 2 = 6 + 4 - 3 = 7 \quad \text{X}$$

$$F = 5 + 3 * 2 - 3 / 4 + (6 \% 5) = 5 + 6 - 2 + 1 = 9 + 1 = 10 \quad \text{X}$$

$$G = (4 + 3) * 2 - 10 / (2 + 3) = 14 - 10 \div 5 = 14 - 2 = 12 \quad \text{X}$$

coding - nob - 06  $a = 5 \quad b = 2 \quad x = 3 \quad y = 4.5$

$$\text{int } r1 = a++ * b + (\text{int}) y \% 3 \rightarrow 5 * 2 + (4 \% 3) = 10 + 1 = 11$$

$$\text{int } r2 = (a > b) \& \& ((\text{int}) x / b < 2) \rightarrow (b > 2) \& \& (3 \div 2 < 2)$$

$$\text{float } r3 = ++x * y - a / z \rightarrow 4.0 * 4.5 - 6 \div 2 \rightarrow 18.0 - 3 \rightarrow 15.0 \quad \text{X}$$

$$\text{float } r4 = ((x + 1.5) > y) | | (b - 70) \rightarrow (15 + 1.5) > 4.5) | | 2 > 70$$

$\rightarrow \text{true} | | \text{true} \rightarrow \text{true} \quad \text{X}$

406-02-01

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 1

406-02-02

x	y	z	x	y	z
1.0	2.0	-			

double x = 1.0, y = 2.0

x	y	z	x	y	z
7.0	2.0	-			

x = y + 5

x	y	z	x	y	z
7.0	3.5	-			

y = x / 3 - z

x	y	z	x	y	z
7.0	25.0	-			

y = (x \* 3.0) + 4

x	y	z	x	y	z
-25.5	25.0	-			

x = -0.5 - y

x	y	z	x	y	z
-25.5	25.0	-0.5			

z = x + y

## coding Hob 03 Relational & logical operator

$x = 12, y = 7, z = 12$

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  $!(z * 5) == y$  ||  $(5! = (5 / 3))$   $2 * 5 > -7$  true,  $!(3!) = 1$

6  $!(x < y)$   $12 < 7$  false | false  $\rightarrow$  true \*

7  $(x + y) > (2 * 2)$   $(12 + 7) > (12 * 2) \rightarrow 19 > 24 \rightarrow$  false \*

8  $(x * 2 == 0) || (y * z == 1)$   $12 * 2 == 0 \rightarrow$  true  $7 * 2 == 1 \rightarrow$  true

9.  $(x > y) \& (z < y)$   $12 > 7 \rightarrow$  true  $12 < 7 \rightarrow$  false

true  $\&$  false  $\rightarrow$  false \*