

Coding — w06-05

$$A = -2 + 5 * 2 = -2 + (5 \times 2) = -2 + 10 = 8 \quad \#$$

$$B = 10 / 2 * 3 = (10 \div 2) \times 3 = 5 \times 3 = 15 \quad \#$$

$$C = 6 / 2 + 3 * (4 \% 2) = 3 + 3 \times (0) = 3 \quad \#$$

$$D = (5 + 2) * 15 / 4 = 105 \div 4 = 1 \quad \#$$

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

$$F = 5 + 3 * 2 - 8 / 4 + (6 \% 5) = 5 + 6 - 2 + 1 = 9 + 1 = 10 \quad \#$$

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

Coding — w06-06 $a=5$ $b=2$ $x=0.3$ $y=4.5$

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

$$\text{int } r2 = (a > b) \&\& ((\text{int}) x / b < 2) \rightarrow (6 > 2) \&\& (3 \div 2 < 2)$$

$$\rightarrow \text{true} \&\& \text{true} \rightarrow \text{true} \quad \#$$

$$\text{float } r3 = ++x * y - a / 2 \rightarrow 40 * 4.5 - 6 \div 2 \rightarrow 180 - 3 \rightarrow 177 \quad \#$$

$$\text{float } r4 = ((x + = 1.5 > y) \&\& (b -- > 0)) \rightarrow ((5 + = 1.5) > 4.5) \&\& (2 > 0)$$

$$\rightarrow \text{true} \&\& \text{true} \rightarrow \text{true} \quad \#$$

Coding __ w06-04 short-hand Expression

แบบเต็ม

$x = x - 4.0;$

$x = 6.5 * x;$

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

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

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

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

แบบย่อ

$x -= 4.0;$

$x *= 6.5;$

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

$x /= (2.0 * x);$

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

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

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

Coding — w06-03 Relational & Logical Operators

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

1. $x > y$

2. $x < y$

3. $x == z$

4. $x != y$

5. $!(2 * 5 >= y) \parallel (5 != (5/3))$ $2 * 5 >= 7$ $10 >= 7$ \rightarrow $!$ $10 >= 7 \rightarrow$ $!$ $10 >= 7$

$5 != 1$ $5 \neq 1$ \rightarrow $!$ $5 \neq 1 \rightarrow$ $!$ $5 \neq 1$

6. $!(x < y)$ $12 < 7$ $!$ $12 < 7 \rightarrow$ $!$ $12 < 7$

7. $(x + y) > (z * 2)$ $(12 + 7) > (12 * 2) \rightarrow 19 > 24 \rightarrow$ $!$ $19 > 24$

8. $(x / 2 == 0) \parallel (y / 2 == 1)$ $12 / 2 = 0 \rightarrow$ $!$ $12 / 2 = 0$

$7 / 2 = 1 \rightarrow$ $!$ $7 / 2 = 1$ \rightarrow $!$ $7 / 2 = 1$

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

$12 > 7 \&\& 12 < 7 \rightarrow$ $!$ $12 > 7 \&\& 12 < 7$

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

4 2 3

k = i % 2

7 3 1

i = (j + k) * 3

12 3 1

W06-02-02

x y z

double x = 1.0, y = 2.0

1.0 2.0

x = y + 5.0

7.0 2.0

y = x % 2.0

7.0 3.5

y = (x * 3.0) + 4.0

7.0 25.0

x = -0.5 - y

-25.5 25.0

z = x + y

-25.5 25.0 -0.5