



ลายเส้น



W06-02-01

i j k

$$i = 1, j = 2, k$$

1 2

$$k = i + j$$

1 2 3

$$i = i + (k \times j)$$

7 2 3

$$j = i / 2$$

7 3 3

$$k = i \% 2$$

7 3 1

$$i = (j + k)^* 3$$

12 3 1





ลายเส้น



W06-02-02

X

Y

Z

double x = 1.0, y = 2.0      1.0      3.0

x = y + 5.0      4.0      3.0

y = x / 2.0      4.0      3.5

y = (x \* 3.0) + 4.0      4.0      25.0

x = -0.5 - y      -25.5      25.0

z = x + y      -25.5      25.0      -0.5





- 146% +



# W06-03 Relational & Logical operators.

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

$$1) x > y \quad 12 > 7 \quad \text{ସତ୍ୟ} \quad \times$$

$$2) x < z \quad 12 < 12 \quad \text{ମିଥ୍ୟା} \quad \times$$

$$3) x == z \quad 12 == 12 \quad \text{ସତ୍ୟ} \quad \times$$

$$4) x != y \quad 12 != 7 \quad \text{ସତ୍ୟ} \quad \times$$

$$5) !(2 * 5 > = y) \parallel (5 != (5 / 3)) \quad 2 * 5 > = 7 \text{ ସତ୍ୟ, } ! \text{ ସତ୍ୟ} \rightarrow \text{ମିଥ୍ୟା}$$

$$5 != 1 \text{ ସତ୍ୟ, false } \parallel \text{ true} \rightarrow \text{true}$$

$$6) !(x < y) \quad 12 < 7 \text{ ମିଥ୍ୟା } ! \text{ false} \rightarrow \text{true} \quad \times$$

$$7) (x + y) > (2 * 2) \quad (12 + 7) > (12 * 2) \rightarrow 19 > 24 \rightarrow \text{false} \quad \times$$

$$8) (x \% 2 == 0) \parallel (y \% 2 == 1) \quad 12 \% 2 = 0 \rightarrow \text{true}$$

$$7 \% 2 = 1 \rightarrow \text{true} \quad \text{true} \parallel \text{true} \rightarrow \text{true} \quad \#$$

$$9) (x > y) \&\& (z < y) \quad 12 > 7 \rightarrow \text{true} \quad 12 < 7 \rightarrow \text{false}$$

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

## W06-04 shot-hand Expression

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$$x = x - 4.0 ;$$

$$x = 6.5 * x ;$$

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

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

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

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

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

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$$X -= 4.0 ;$$

$$X * = 6.5 ;$$

$$X \% = (y + z * a) ;$$

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

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

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

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



W06 - Q5

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

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

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

$$D = (5 + 2) * 15 / 4 = 105 \div 4 = 1 \quad \text{✗}$$

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

$$F = 5 + 3 * 2 - 8 / 4 + (6 / 5) = 5 + 6 - 2 + 1 = 10 \quad \text{✗}$$

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

W06-06

 $a = 5 \quad b = 2 \quad x = 3.0 \quad y = 4.5$  $\text{int } r1 = a++ * b + (\text{int})y / 3 \rightarrow 5 * 2 + (4 / 3) = 10 + 1 = 11$   $a$  เพิ่ม  $b$  $\text{int } r2 = (a > b) \&\& (\text{int})x / b < 2 \rightarrow (5 > 2) \&\& (3 / 2 < 2)$   
 $\rightarrow \text{true} \&\& \text{true} \rightarrow \text{true} \times$  $\text{float } r3 = ++x * y - a / 2 \rightarrow 4.0 * 4.5 - 5 / 2 \rightarrow 18.0 - 2.5 \rightarrow 15.5$   $\times$  $\text{float } r4 = ((x += 1.5) > y) \|\ (b-- > 0) \rightarrow ((5 + 1.5) > 4.5) \|\ (2 > 0)$   
 $\rightarrow \text{true} \|\ \text{true} \rightarrow \text{true} \times$