

Coding - W08-04 short-hand Expression  
 111111  
 $x = x - 4.0;$   
 $x = 0.5 * x;$   
 $x = x / (y + z * a);$   
 $x = x / (2.0 * x);$   
 $total = total + (price * quantity - discount);$   
 $x = x * (1 + rate / 100);$   
 $score = score - (penalty * (mistake + 1));$

M211 Q10

$x = 4.0;$   
 $x * = 0.5;$   
 $x \% = (y + z * a);$   
 $x / = (2.0 * x);$   
 $total += (price * quantity - discount);$   
 $x * = (1 + rate / 100);$   
 $score = (penalty * (mistake + 1));$

\* (Coding - W08-05)

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

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

$$C = 5 / 2 + 3 * (4 \div 2) = 3 + 3 * (9) = 3 \#$$

$$D = (5 + 2) * 19 \div 4 = (7 * 5 \div 4) = 1 \#$$

$$E = 5 + 2 * 2 - 6 / 2 = 5 + 4 - 3 = 9 \#$$

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

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

\* (Coding - W08-06)  $a = 5$   $b = 2$   $x = y$   $y = 4.5$

$$\text{int } h1 = a++ * b + (\text{int})y \% 3 \rightarrow 5 * 2 + (4 \div 3) = 10 + 1 = 11 \text{ & } \text{ans}$$

$$h1 + h2 = (a > b) \& ((\text{int})x / b < 2) \rightarrow (5 > 2) \& (3 \div 2 < 2) \rightarrow \text{true} \& \text{true} \rightarrow \text{true} *$$

$$float h3 = +x * y - a / 2 \rightarrow 4.0 * 4.5 - 5 \div 2 \rightarrow 18.0 - 3 \rightarrow 15.0 \#$$

$$float h4 = [(x + 1.5) > y] | [b > 0] \rightarrow ((5 + 1.5) > 4.5) | | \underline{[2 > 0]}$$

$\rightarrow \text{true} | \text{true} \rightarrow \underline{\text{true}}$

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
$j = j / 2$	7	3	3
$k = i * z$	7	3	1
$i = (j + k) * 3$	12	3	1

W06-02-02

	X	Y	Z
	X	Y	Z
double $x = 1.0, y = 2.0$	1.0	2.0	-
$x = y + s$	7.0	2.0	
$y = x / z$	7.0	3.5	
$y = (x * 3.0) + t$	7.0		25.0
$x = -s - y$	-25.0	25.0	
$z = x + y$	-25.0	25.0	-0.5

## Coding W06-3 Relational &amp; Logical operators

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

1.  $x > y$   $12 > 7$   $\text{true} \#$

2.  $x < z$   $12 < 12$   $\text{false} \#$

3.  $x == z$   $12 == 12$   $\text{true} \#$

4.  $x != y$   $12 != 7$   $\text{true} \#$

5.  $!(z * 5) == y$   $!(12 * 5) == 7$   $\text{true} \#$

6.  $!(x < y)$   $12 < 7$   $\text{false} \rightarrow \text{true} \#$

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

8.  $(x * z == 0) \text{ || } (y * z == 0)$   $12 * 12 == 0 \rightarrow \text{true}$

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

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