

4. Evaluate the following arithmetic expressions.

Given: int x = 100, y = 70, z = 30;

- (a) $x + y * z =$ (b) $x - y * z =$ (c) $x * y - z =$
 (d) $x + y / z =$ (e) $(x + y) / z =$ (f) $(x - y) \% z =$
 (g) $x \% y * x / z =$ (h) $x * y / z \% y =$ (i) $(x + y) / (x - z) =$
 (j) $y / x + x / y =$ (k) $y / x * z =$ (l) $x \% y \% z =$

5. Evaluate the following arithmetic expressions.

Given: int s = 3000, t = 1000;

- (a) $s = ++t;$ (b) $s -= --t;$ (c) $s += s++;$ (d) $t -= --t;$
 (e) $s *= t;$ (f) $s *= ++t;$ (g) $s /= ++t;$ (h) $s /= t++;$
 (i) $s \% = --t;$ (j) $s \% = ++t;$ (k) $s += t + 10;$ (l) $s -= 10 - t;$

6. Evaluate:

- (a) $100 + 50.6 / 2 =$ (b) $120 / 70 + 102.03 =$ (c) $400.37 + 41 / 2 =$
 (d) $1.0 / 2 + 809.45 =$ (e) $(int) (150.5 / 6) =$ (f) $(int) (289 / 5.0) =$

7. Evaluate:

- (a) $Math.round(248.672) =$ (b) $Math.floor(702.3) =$ (c) $Math.ceil(-63.208) =$
 (d) $Math.max(10, -12) =$ (e) $Math.min(-5, 8) =$ (f) $Math.pow(10, 2) =$
 (g) $Math.pow(16, 0.25) =$ (h) $Math.abs(-456.905) =$ (i) $Math.sqrt(121) =$

8. Write Java statements for the following mathematical expressions:

(a) $\frac{4(y-5)}{3(1-2x)}$ (b) $\frac{n(n^2-1)}{m(1+n)}$ (c) $\frac{-b + \sqrt{b^2 - 4ac}}{2a}$

(d) $5 \frac{1 + \frac{a}{b}}{1 - \frac{a}{b}}$ (e) $\cos^2 x - \sin^2 x$ (f) $\frac{x^{-1} - y^{-1}}{x^{-2} + y^{-2}}$