# WORKSHEET A3.2 – Answer Sheet

# Precedence and Assignment Operators

For all of the following expressions (questions # 1-8), use precedence rules to determine the correct answer:

1. 8 + 3 \* 6 / 5 % 6 - 9 5. 12 \* 3 % 8 / 2

**8 + 18 / 5 % 6 - 9 36 % 8 / 2**

**8 + 3 % 6 - 9 4 / 2**

**8 + 3 - 9 2**

**2**

2. (8 \* 3) / 9 + 2 \* 5 6. (12 \* 3) % (8 / 2)

**24 / 9 + 2 \* 5 36 % 4**

**2 + 10 0**

**12**

3. (**double**) 9 / 4 7. 17.5 / 3.75 + 2

**2.25 6.67**

4. (**int**) 17.5 / 3 8. 12.5 % 3

**17 / 3 0.5**

**5**

9. Explain how this statement is evaluated: a = b = 2;

**The assignment operator (=) is processed from right to left. The statement could be rewritten as**

**a = (b = 2);**

**The expression, b = 2, returns the value of 2, which is then assigned to a.**

For questions # 10-12, translate each of the following statements into Java code. Where appropriate, several versions will be requested:

10. Increment *number* by 10. (2 versions)

a. longer version b. using assignment operator

**number = number + 10; number += 10;**

11. Increment *count* by 1. (2 versions)

a. longer version b. using increment operator

**count = count + 1; ++count; or count++;**

12. Multiply *base* by 2. (2 versions)

a. longer version b. using assignment operator

**base = base \* 2; base \*= 2;**

For questions # 13 and # 14, determine the final values of a and b for each fragment of code:

13. 14.

b = 2; b = 2;

a = ++b; a = b++;

**a = 3, b = 3 a = 2, b = 3**