Python LogicalOperators

1-Consider the variables:

* (num1 > num2) or (num3 > num4)
* (num1 != num3) and (num4 < num5)
* num4 + num5) > 0) or (num2 < num3)
* not (num2 == num4)

2-Simplify the following logical expressions for an arbitrary Boolean bol:

* {bol and False}
* {bol or False}
* {bol or True}
* not (not bol)

3-Starting with the following variable definitions:

Determine the value of:

* {bol4 = bol1 or bol2 and not bol3}
* {bol5 = not bol1 and bol3 or bol2}
* {bol6 = not(bol2 or bol3)}
* {bol7 = not(bol2 and not bol3)}
* {bol8 = not(bol1 or bol2) or (bol2 and bol3)}
* {bol9 = bol1 or (bol1 or (bol1 or bol2)) or bol3}
* {bol10 = bol9 and bol2 and not bol3}

4-Starting with the following variable definitions:

Determine the expressions::

* {bol1 = a > b or a > c}
* {bol2 = a == 0.0 or d == 4.9}
* {bol3 = c < -6 or (d > 0 and e == d)}
* {bol4 = a + b <= 11 or d == 5}
* {bol5 = not (a > 30 or d < 0)}
* {bol6 = not (not (not (a + e > 2 or c + b > 0) or e – a > 2))}
* {bol7 = not (b\%2 == 0)}
* {bol8 = (c\%2 > 0 or e\%2 > 0 or b\%2 > 0) and a\%4 == 0}
* {bol9 = (b//2 > 0 and not(a//2 > 0)) or (not(b//2 > 9) and a//2 > 0)}
* {bol10 = not (bol3 and (a + b\*\*2 > 50)) or d == e}