

# Questions related to an AQA Guide #1.

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## Arithmetic operations in a programming language

Evaluate the following expressions:

- 1)  $(3 * 4) / (4 + 2)$
- 2)  $(x + y) / (x - y)$  if  $x = 6$  and  $y = 4$

Write the code in Python to evaluate the following expressions:

- 3)  $(3 * 4) / (4 + 2)$
- 4)  $(i + j) / (i - j)$
- 5) What happens if  $i = j$  in expression 4?
- 6) Explain the terms “quotient” and “remainder” in connection with arithmetic operations.

Evaluate the following expressions (Python can help – show the code in your working out)

- 7)  $(3 * 5) \text{ MOD } (4 + 2)$
- 8)  $(3 * 5) \text{ DIV } (4 + 2)$
- 9)  $(3 + (6 \text{ MOD } 3)) / (28 \text{ DIV } 5)$
- 10)  $(26 \text{ MOD } 7) + (9 \text{ DIV } 4) * 3 / (51 \text{ DIV } 7)$

- 11) Show how DIV and MOD can be used to calculate the binary value of a decimal number.

Evaluate the following expressions (Python can help – show the code in your working out)

- 12)  $(8 * 5) \text{ MOD } (16 - 5)$
- 13)  $(3 * 12) \text{ DIV } (3 + 8)$
- 14)
- 15)
- 16)
- 17)
- 18)
- 19)
- 20)