

11 Programming – Part 2 —Answers

Answers

11.1 (a) $17 \text{ DIV } 5 = 3$; (b) $17 \text{ MOD } 5 = 2$.

11.2 (a) 5; (b) "HE".

11.3 When testing one variable against several separate values—it is clearer than many nested IFs.

11.4 $n \text{ MOD } 2 = 0$ (the remainder when dividing by 2 is zero).

11.5 Any one: move unchanging work out of the loop; exit early when the result is found; avoid recomputing the same value.

11.6 An even number divides exactly by 2, leaving no remainder. MOD gives the remainder, so $n \text{ MOD } 2$ is 0 for an even number and 1 for an odd one.

11.7 For example:

INPUT seconds

mins $\leftarrow$ seconds DIV 60

secs $\leftarrow$ seconds MOD 60

OUTPUT mins, secs