

The additive or multiplicative persistence of a two-digit integer can be calculated using the pseudo code below. In an AS exam you would be given the pseudo and if this question appeared in the full A-level, you would have to come up with the code yourself.

```
OUTPUT "Enter integer (0-99): "  
INPUT Value  
OUTPUT "Calculate additive or multiplicative persistence (a or m)? "  
INPUT Operation  
Count ← 0  
WHILE Value > 9  
    IF Operation = "a" THEN  
        Value ← (Value DIV 10) + (Value MOD 10)  
    ELSE  
        Value ← (Value DIV 10) * (Value MOD 10)  
    ENDIF  
    Count ← Count + 1  
ENDWHILE  
OUTPUT "The persistence is: "  
OUTPUT Count
```