YOU & MATHS The function f is defined by $y = f(x) = 4x - 5$. Find $f(3)$. Hence find the value of k for which $k \cdot f(3) = f(10)$.

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First let's find $f(3)$. We simply apply the definition of f:

$f(3) = 4 \cdot 3 - 5 = 12 - 5 = 7$.

To answer the second question, let's compute $f(10)$:

$f(10) = 4 \cdot 10 - 5 = 35$,

and then rewrite $k \cdot f(3) = f(10)$ as:

$7k = 35$,

which gives us the result:

$k = 5$.