13 Here is a table of values of x and y.

x	2	4	6	8
y	0	4	8	12

Nadia says that y is directly proportional to x because the value of y increases by 4 as the value of x increases by 2
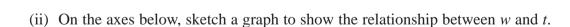
(a) Is Nadia correct?
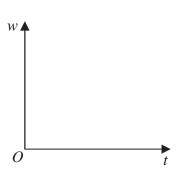   You must give a reason for your answer.

....

....

....

(1)

w is directly proportional to the square root of t.

$w = 140$ when $t = 64$

(b) (i) Calculate the value of w when $t = 7.84$

$w =$ ....

(3)

(ii) On the axes below, sketch a graph to show the relationship between w and t.

(1)