



Mathematics Department  
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Name:	Linear approximations	Date
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Q1: Let  $f(2) = -5$ ,  $f'(2) = 1$  the linear approximations of  $f(x)$  is

a) $L(x) = 7 - x$	b) $L(x) = x - 7$
c) $L(x) = 11 - 5x$	d) $L(x) = -3 - x$

Q2: let  $f(3) = 7$ ,  $f'(3) = 2$  use it to approximate  $f(3.02)$

a) $f(3.02) \approx 7.04$	b) $f(3.02) \approx 3.06$
c) $f(3.02) \approx 1.76$	d) $f(3.02) \approx -70.4$

Q3:

A company estimates that  $f(x)$  thousand software games can be sold at the price of \$ $x$  as given in the table.

$x$	20	30	40
$f(x)$	18	14	12

Estimate the number of games that can be sold at 23\$

a) 10.5	b) 12.8
c) 6.5	d) 16.8