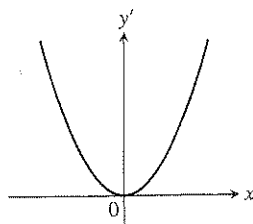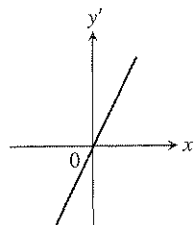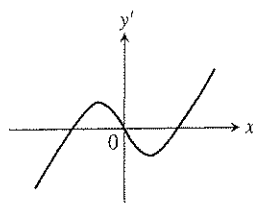Fig. 1

Figures for Version 4

Graphs

Match the functions graphed in Exercises 27–30 with the derivatives graphed in the accompanying figures (a)–(d).

(a)

(b)

(c)
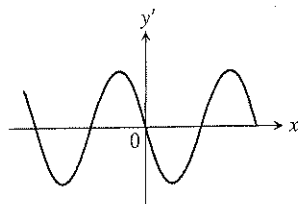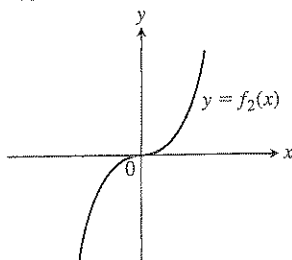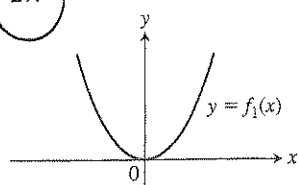

(d)

27.

$y = f_1(x)$

28.

$y = f_2(x)$

29.

30.

40. A building's shadow   On a morning of a day when the sun will pass directly overhead, the shadow of an 80-ft building on level ground is 60 ft long. At the moment in question, the angle θ the sun makes with the ground is increasing at the rate of $0.27°/$min. At what rate is the shadow decreasing? (Remember to use radians. Express your answer in inches per minute, to the nearest tenth.)
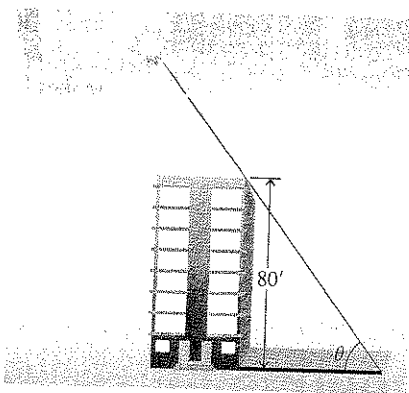
Fig. 2

80'

θ

64.
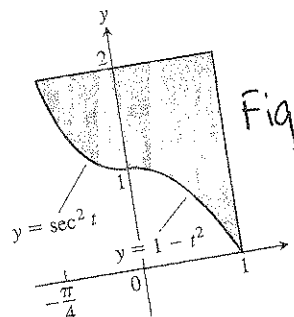
Fig. 3

$y = \sec^2 t$

$y = 1 - t^2$

$-\dfrac{\pi}{4}$