Skill Refresher

In Exercises (S1)-(S6), solve the equations simultaneously if possible.

S1. $\begin{cases} x+y=3 \\ y=5 \end{cases}$

S2. $\begin{cases} x+y=3 \\ x-y=5 \end{cases}$
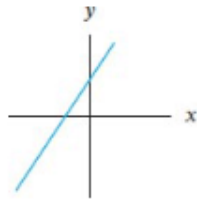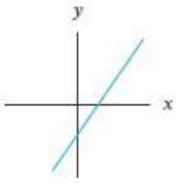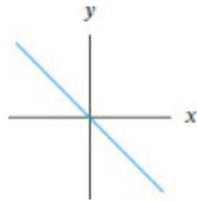
S3. $\begin{cases} x+y=2 \\ 2x+2y=7 \end{cases}$

ANSWER ⊕
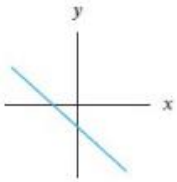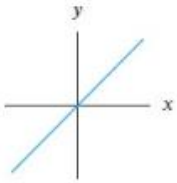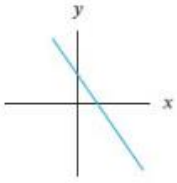
S4. $\begin{cases} y=x-3 \\ 2y-2x=-6 \end{cases}$

S5. $\begin{cases} 2x-y=10 \\ x+2y=15 \end{cases}$

Exercises

1. Without using a calculator, match the equations a-f to the graphs I-VI.

   (a) $y=-2.72x$
   (b) $y=0.01+0.001x$
   (c) $y=27.9-0.1x$
   (d) $y=0.1x-27.9$
   (e) $y=-5.7-200x$
   (f) $y=x/3.14$

3. Figure 1.48 gives lines A, B, C, D, and E. Without a calculator, match each line to f, g, h, u or v:

$f(x) = 20 + 2x$
$g(x) = 20 + 4x$
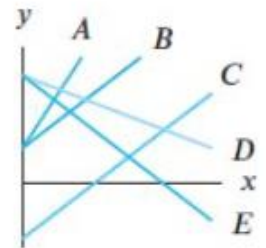$h(x) = 2x - 30$
$u(x) = 60 - x$
$v(x) = 60 - 2x$

Figure 1.48

Problems

6. Sketch five different functions in the family $y = -2 - ax$ for $a < 0$.

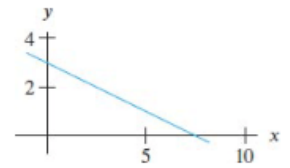**7.** Estimate the slope of the line in Figure 1.50 and find an approximate equation for the line.

Figure 1.50

ANSWER ⊕

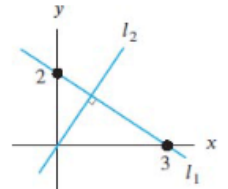**8.** Find the equation of the line l_2 in Figure 1.51.

Figure 1.51

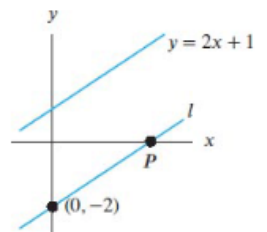**9.** Line l in Figure 1.52 is parallel to the line $y = 2x + 1$. Find the coordinates of the point P.

Figure 1.52