Find the equations of each of the following lines.

- (1) Find the slope intercept form of the line through (0, 23) and $(-1, \frac{117}{5})$.
- (2) Find the slope intercept form of the line through (-5,3) which is perpendicular to the vertical line passing through (0,-1).
- (3) Find the slope intercept form of the line through (-3, 17) and with slope 1.
- (4) Find the slope intercept form of the line through $(-2, \frac{-33}{5})$ which is perpendicular to the line $y = -\frac{5}{-6}x + 5$.
- (5) Find the slope intercept form of the line through (2, -18) which is parallel to the line y = 10.
- (6) Find the slope intercept form of the line through (4,14) and with slope 0.
- (7) Find the slope intercept form of the line through (0, 2) and $(-1, \frac{1}{2})$.
- (8) Find the slope intercept form of the line through (-5, 0) and (0, 10).
- (9) Find the slope intercept form of the line through (-2, -7) and with slope 0.
- (10) Find the slope intercept form of the line through (3, -26) which is parallel to the line y = -1x + -7.
- (11) Find the slope intercept form of the line through (1, 16) and (3, 16).
- (12) Find the slope intercept form of the line through (2, -12) which is perpendicular to the line $y = -\frac{1}{-2}x + -17$.
- (13) Find the slope intercept form of the line through (3,9) and with slope 0.
- (14) Find the slope intercept form of the line through (-5, 4) which is perpendicular to the line $y = -\frac{1}{-1}x + 16$.
- (15) Find the slope intercept form of the line through (2, 20) which is perpendicular to the line y = -2x + 1.
- (16) Find the slope intercept form of the line through $(4, \frac{-55}{3})$ which is perpendicular to the line $y = -\frac{6}{-5}x + -5$.
- (17) Find the slope intercept form of the line through $\left(-1, \frac{-7}{3}\right)$ which is parallel to the line $y = \frac{-5}{3}x + -8$.
- (18) Find the slope intercept form of the line through $(-3, \frac{-27}{4})$ and with slope $\frac{5}{4}$.
- (19) Find the slope intercept form of the line through (-3, -14) which is perpendicular to the line $y = -\frac{1}{-1}x + -19$.
- (20) Find the slope intercept form of the line through (-4, 24) which is perpendicular to the line $y = -\frac{2}{-3}x + 12$.

- (21) Find the slope intercept form of the line through $(-2, \frac{12}{5})$ and with slope $\frac{-1}{5}$.
- (22) Find the slope intercept form of the line through $(-1, \frac{-9}{2})$ and with slope $\frac{5}{2}$.
- (23) Find the slope intercept form of the line through $\left(-4, \frac{99}{5}\right)$ which is parallel to the line $y = \frac{-6}{5}x + 14$.
- (24) Find the slope intercept form of the line through (4, 42) and (0, 18).
- (25) Find the slope intercept form of the line through (2, 17) and with slope -1.
- (26) Find the slope intercept form of the line through (4, 20) which is parallel to the line y = 12.
- (27) Find the slope intercept form of the line through $(1, \frac{26}{3})$ which is parallel to the line $y = \frac{2}{3}x + 13$.
- (28) Find the slope intercept form of the line through $(-1, \frac{-7}{4})$ which is parallel to the line $y = \frac{3}{4}x + -10$.
- (29) Find the slope intercept form of the line through (-4, 18) which is parallel to the line y = -3x + 4.
- (30) Find the slope intercept form of the line through (3, 6) and with slope -4.
- (31) Find the slope intercept form of the line through (-3, -26) which is parallel to the line y = x + 0.
- (32) Find the slope intercept form of the line through (-2, -21) and with slope 0.
- (33) Find the slope intercept form of the line through (-1, 24) and with slope -2.
- (34) Find the slope intercept form of the line through (-2, -2) and with slope $\frac{3}{2}$.
- (35) Find the slope intercept form of the line through (3, 21) which is parallel to the line y = 2.
- (36) Find the slope intercept form of the line through $(-1, \frac{47}{3})$ which is parallel to the line $y = \frac{-5}{3}x + 19$.
- (37) Find the slope intercept form of the line through $(-1, \frac{52}{3})$ which is parallel to the line $y = \frac{-1}{3}x + -12$.
- (38) Find the slope intercept form of the line through $(3, \frac{-92}{5})$ and $(-3, \frac{-98}{5})$.
- (39) Find the slope intercept form of the line through $(2, \frac{49}{2})$ and $(-2, \frac{43}{2})$.
- (40) Find the slope intercept form of the line through (1,13) which is perpendicular to the vertical line passing through (2,3).

Solutions:

| (1) $y = \frac{-2}{5}x + 23.$ | (11) $y = 16.$ | (21) $y = \frac{-1}{5}x + 2.$ | (31) $y = 1x - 23$. |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|
| (2) $y = 3.$ | (12) $y = -2x - 8.$ | (22) $y = \frac{5}{2}x - 2.$ | (32) $y = -21.$ |
| (3) $y = 1x + 20.$ | (13) $y = 9.$ | (23) $y = \frac{-6}{5}x + 15.$ | (33) $y = -2x + 22$. |
| (4) $y = \frac{-6}{5}x - 9.$ | (14) $y = -1x - 1.$ | (24) $y = 6x + 18.$ | (34) $y = \frac{3}{2}x + 1.$ |
| (5) $y = -18.$ | (15) $y = \frac{1}{2}x + 19.$ | (25) $y = -1x + 19.$ | (35) $y = 21.$ |
| (6) $y = 14.$ | (16) $y = \frac{-5}{6}x - 15.$ | (26) $y = 20.$ | (36) $y = \frac{-5}{3}x + 14.$ |
| (7) $y = \frac{3}{2}x + 2.$ | (17) $y = \frac{-5}{3}x - 4.$ | (27) $y = \frac{2}{3}x + 8.$ | (37) $y = \frac{-1}{3}x + 17.$ |
| (8) $y = 2x + 10.$ | (18) $y = \frac{5}{4}x - 3.$ | (28) $y = \frac{3}{4}x - 1.$ | (38) $y = \frac{1}{5}x - 19.$ |
| (9) $y = -7.$ | (19) $y = -1x - 17.$ | (29) $y = -3x + 6.$ | (39) $y = \frac{3}{4}x + 23.$ |
| $(10) \ y = -1x - 23.$ | (20) $y = \frac{-3}{2}x + 18.$ | $(30) \ y = -4x + 18.$ | (40) $y = 13.$ |