

Answer Key

Challenge: Skills and Applications

1. $y = -\frac{A}{B}x + \frac{C}{B}$ 2. $-\frac{A}{B}; \frac{C}{B}$
3. $m = \frac{5}{3}, b = -5$ 4. $m = \frac{2}{7}, b = 2$
5. $m = -\frac{3}{2}, b = -3$ 6. $m = -\frac{4}{5}, b = \frac{7}{5}$
7. (4, 0) and (0, -3) 8. (0, -3) and (4, 0)
9.

| <i>Equation</i> | <i>Points plotted</i> |
|------------------|-------------------------------|
| | <i>With intercepts method</i> |
| $2x + 5y = 10$ | (5, 0) and (0, 2) |
| $4x + 5y = 10$ | $(\frac{5}{2}, 0)$ and (0, 2) |
| $7x + 2y = -14$ | (-2, 0) and (0, -7) |
| $4x + 6y = -12$ | (-3, 0) and (0, -2) |
| $-9x + 4y = -36$ | (4, 0) and (0, -9) |

| <i>Equation</i> | <i>Points plotted</i> |
|------------------|------------------------------------|
| | <i>With slope-intercept method</i> |
| $2x + 5y = 10$ | (0, 2) and (5, 0) |
| $4x + 5y = 10$ | (0, 2) and (5, -2) |
| $7x + 2y = -14$ | (0, -7) and (2, -14) |
| $4x + 6y = -12$ | (0, -2) and (3, -4) |
| $-9x + 4y = -36$ | (0, -9) and (4, 0) |

10. $C = AB$