

# Lines

*These problems provide practice writing and solving equations of lines.*

**Problem 1** Write an equation of the line through  $(2, 4)$  parallel to  $5x - 3y = 1$ . Now write an equation of the line through  $(x_1, y_1)$  parallel to  $ax + by = c$ .

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**Problem 2** Write an equation of the line through  $(2, 4)$  perpendicular to  $5x - 3y = 1$ . Now write an equation of the line through  $(x_1, y_1)$  perpendicular to  $ax + by = c$ .

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With two equations in two unknowns, two common solutions methods are substitution and elimination.