1. Find an equation of the line passing the point \((1, -2)\) with slope \(-2\)

Use the point-slope form of a line

\[
y - y_1 = m(x - x_1)
\]

where \(m = \text{slope} = -2\) and \((x_1, y_1) = (1, -2)\). So we get

\[
y - (-2) = -2(x - 1)
\]

or

\[
y + 2 = -2x + 2
\]

or

\[
y = -2x
\]

2. Find an equation of the line passing the point \((2, 1)\) that is parallel to the line \(2y = x - 1\).

Use the point-slope form a line

\[
y - y_1 = m(x - x_1)
\]

where \((x_1, y_1) = (2, 1)\), and \(m = \text{slope}\). Since our line is parallel to the line \(2y = x - 1\), our line will have the same slope. The slope of the line \(2y = x - 1\) is \(\frac{1}{2}\), so our slope is \(m = \frac{1}{2}\). So our equation is

\[
y - 1 = \frac{1}{2}(x - 2)
\]

\[
2(y - 1) = (x - 2)
\]

\[
\Rightarrow 2y - 2 = x - 2
\]

\[
\Rightarrow 2y = x
\]