1.
Given $(-5, 2)$
Student marked points: $(-2, 4)$ and/or $(1, 6)$
$m = \frac{2}{3}$

2.
$m = \frac{(4-2)}{(-2-(-5))} = \frac{2}{3}$
OR
$m = \frac{(6-2)}{(1-(-5))} = \frac{2}{3}$

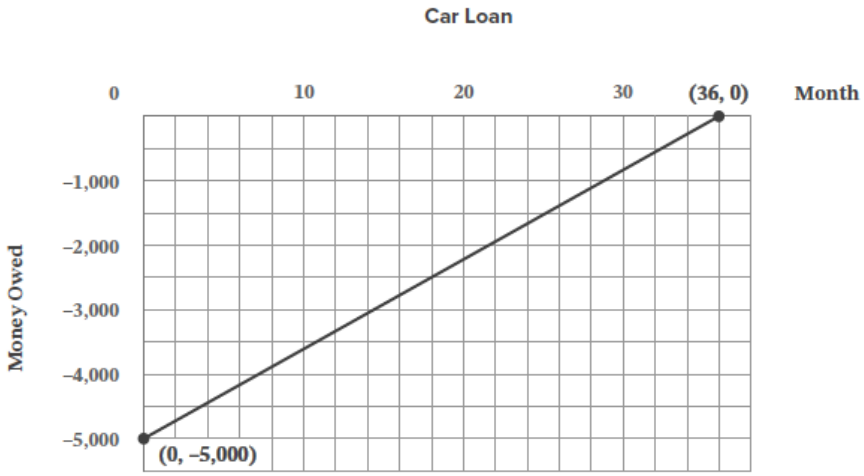
3.
$m = \frac{-4-2}{3-1} = \frac{-6}{2} = -3$

4.
$$\frac{2}{3} = \frac{r-5}{-9-6}$$
$$\frac{2}{3} = \frac{r-5}{-15}$$
$$2(-15) = 3(r-5)$$
$$-30 = 3r - 15$$
$$-15 = 3r$$
$$r = -5$$

5.
(minutes, gallons of gas remaining)
The y-intercept, (0, 5) represents a full generator with 5 gallons of gas before it is turned on.
The x-intercept (25,0) shows that it took 25 hours to use all the gas in the generator.

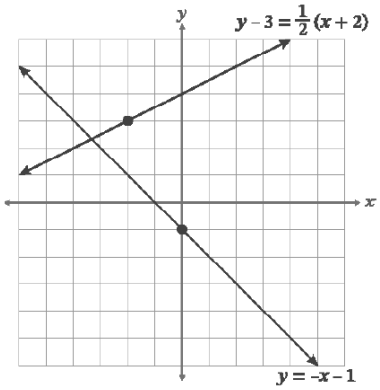
6.
$m = \frac{5-0}{0-25} = \frac{5}{-25} = -\frac{1}{5}$
The rate of change is –1 gallons per 5 hours, or every 5 hours the generator uses 1 gallon of gas.

7.



8.
This sketch shows (months, money owed). The y-intercept (0, –5,000) is the starting loan amount, $5,000. The x-intercept (36, 0) shows that after 36 months, the loan is paid in full. Since the start and end point are given, a line can be drawn to show the payments in between. The slope is positive since there is less money owed after each payment.
Optional: $m = \frac{(-5{,}000 - 0)}{(0 - 36)} = 138.\overline{8} = 138.89$, Making the payments $138.89 each.

9.
$y = -3x + 5$

10.


11.
$m = \frac{1 - (-3)}{2 - 0} = \frac{1 + 3}{2} = \frac{4}{2} = 2$
$b = -3$
$y = 2x - 3$
$f(x) = 2x - 3$

12.
$m = \frac{0 - 3}{1 - (-1)} = \frac{-3}{1 + 1} = \frac{-3}{2}$
$y - 3 = -\frac{3}{2}(x - (-1))$
$y - 3 = -\frac{3}{2}(x + 1)$