1. Aaron only has \$1 right now, but he makes \$3 for each cookie he sells. How much money will he have after he sells 8 cookies?

$$a(n) = 1 + 3n$$

$$a(8) = 1 + 3(8) = \boxed{\$25}$$

2. The lemonade stand has \$100 right now, but they make 3% profit every month. How much money will they have in 9 months?

$$a(n) = 100(1.03^n)$$

$$a(9) = 100 \left(1.03^9\right) = \boxed{\$130.48}$$