1. Tom starts a new job and earns $\$ 4$ every day. He adds all his money to his piggy bank. He started with $\$ 1$.
(a) How much will Tom have after one day? Ten days? 100 days?
(b) If Tom has $\$ 101$, how many days have passed? How do you know?
2. Consider the following Grade 2 problem:

Every time Mike reads a book he puts a star on a paper that hangs on his door. The first week he put two stars on the paper. The second week he put four stars on the paper. The third week he put six stars on the paper. If this continues, how many stars will Mike put on the paper in the eights week?
(a) Solve the problem.
(b) Identify one mistake that you suspect will be common among grade 2 students attempting to solve the problem.
(c) From what fundamental misconception does this mistake arise?
(d) What situation or activity would challenge this misconception? Do not use the problem itself directly.
(e) Give a formula, in terms of $n$, for the number of stars on the $n$th week.

