Recursive Formula Practice Math 3

Find the first 5 terms of the sequence given the recursive formula.

| 1. | f(1) = -2, f(n) = f(n-1) + 3 | | |
|----|-------------------------------|--|--|
| 2. | f(1) = 10, f(n) = f(n-1) - 13 | | |
| 3. | f(1) = 0.25, f(n) = 4f(n-1) | ,, | |
| 4. | f(1) = 1000, f(n) = 0.1f(n-1) | , , , , , | |
| 5. | f(1) = -2, f(n) = 2f(n-1) + 3 | | |

Write a recursive formula for the given scenario.

- 6. 2 people spread a rumor at a rate of 10% per minute. How many people know the rumor in *n* minutes?
- 7. Will has \$4 in his wallet. He adds \$10 more a day. How much money does Will have after *n* days?
- 8. A family of 2000 penguins begin to die off at a rate of 15% per year. How many penguins will be alive in *n* years?
- 9. The State Fair starts with 100000 ears of corn. They expect to sell 4000 ears a day. How many ears of corn will the Fair have after *n* days?
- 10. Challenge: Write a recursive formula. 11. Super Challenge: Write a recursive formula.

$$f(n) = 7, 10, 17, 27, 44, 71, \dots$$