

Answer Key

Challenge: Skills and Applications

1. negative
2. positive
3. negative
4. positive
5. negative
6. negative
7. $a = 2, b = -12, c = 18, d = -30$
8. $a = -3, b = 4, c = -32, d = -7$
9. -125
10. $10\frac{1}{2}$
11. $6\frac{1}{9}$
12. $y = 4000 - 85x$
13. 3405 people
14. -250 ; If the trend could continue, there would be a negative number of people in the town in 50 years. This is impossible. According to the model, the town would be abandoned sometime before 2048.