

SRJC - CS 10A: Worksheet 4**SOLUTION**

Determine the value of i AFTER each of the loops below FINISHES running.

2 points for each correct answer, 1 point if off by one step where applicable.

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|-------------------------------------|----------------|
| 1. for(int i = 0; i < 9; i++) | i = 9, i = 8 |
| 2. for(int i = 10; i >= 0; i--) | i = -1, i = 0 |
| 3. for(int i = 0; i < 19; i += 2) | i = 20, i = 18 |
| 4. for(int i = 14; i < 5; i -= 3) | i = 14 |
| 5. for(int i = 2; i <= 25; i *= 3) | i = 54, i = 18 |
| 6. for(int i = 127; i > 2; i /= 2) | i = 1, i = 3 |
| 7. for(int i = 1; i <= 8; i <<= 1) | i = 16, i = 8 |
| 8. for(int i = 63; i >= 4; i >>= 1) | i = 3, i = 7 |

Determine whether the loops below are finite or infinite. Circle the answer. 1 point each.

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|---|--------|----------|
| 9. for(int k = 0; k < 2; k *= 2)
cout << "Chicken - Egg - " << endl; | Finite | Infinite |
| 10. int k = 0;
while(k < 5)
{
k += 2;
k /= 2;
} | Finite | Infinite |
| 11. for(int k = 2; k < 12; k--)
k *= 2; | Finite | Infinite |
| 12. int k = 0;
while(k < 7)
{
k++;
k %= 7;
} | Finite | Infinite |