

$25: 1584/15 = 105.6 + 25 = 130 \div 13 = 0, 1 \text{ probe}$
 $14: 825/15 = 55 + 14 = 69 \div 13 = 4, 1 \text{ probe}$
 $9: 560/15 = 37.3 + 9 = 46 \div 13 = 7, 1 \text{ probe}$
 $7: 468/15 = 31.2 + 7 = 38 \div 13 = 12, 1 \text{ probe}$
 $5: 384/15 = 25.6 + 5 = 30 \div 13 = 4, 1 \text{ col } 1 \text{ probe}$
 $\text{Reverse}(5) = (4 + 1 \cdot 5) \div 13 = 9$
 $3: 308/15 = 20.5 + 3 = 23 \div 13 = 10, 1 \text{ probe}$
 $0: 209/15 = 13 + 0 = 13 \div 13 = 0, 1 \text{ probe}, 1 \text{ collision}$
 $\text{Reverse}(0) = (0 + 1 \cdot 1) \div 13 = 1$
 $2: 1280/15 = 85 + 21 = 106 \div 13 = 2, 1 \text{ probe}$
 $6: 425/15 = 28 + 6 = 34 \div 13 = 8, 1 \text{ probe}$
 $33: 2288/15 = 152 + 33 = 185 \div 13 = 3, 1 \text{ probe}$
 $25: 1584/15 = 105.6 + 25 = 130 \div 13 = 0 \text{ col}$
 $\text{Reverse}(25) = (0 + 1 \cdot 52) \div 13 = 0 \text{ collision}$
 $(0 + 1 \cdot 1) \div 13 = 1$
 $(0 + 2 \cdot 11) \div 13 = 2$
 $(0 + 3 \cdot 1) \div 13 = 3$
 $(0 + 4 \cdot 1) \div 13 = 4$
 $(0 + 5 \cdot 1) \div 13 = 5, 7 \text{ collisions}, 8 \text{ probe}$
 $42: 3233/15 = 215 + 42 = 257 \div 13 = 10$
 $\text{Reverse}(42) = (10 + 1 \cdot 24) \div 13 = 8$
 $(10 + 2 \cdot 24) \div 13 = 6, 2 \text{ collisions}, 3 \text{ probe}$
 $24: 1505/15 = 100 + 24 = 124 \div 13 = 7$
 $\text{Reverse}(24) = (7 + 1 \cdot 42) \div 13 = 10$
 $(7 + 2 \cdot 42) \div 13 = 0$
 $(7 + 3 \cdot 42) \div 13 = 3$
 $(7 + 4 \cdot 42) \div 13 = 6$
 $(7 + 5 \cdot 42) \div 13 = 9$
 $(7 + 6 \cdot 42) \div 13 = 12$
 $(7 + 7 \cdot 42) \div 13 = 2$
 $(7 + 8 \cdot 42) \div 13 = 5$
 $(7 + 9 \cdot 42) \div 13 = 8$
 $(7 + 10 \cdot 42) \div 13 = 11, 10 \text{ collisions}, 11 \text{ probe}$
 $107: 14868/15 = 991 + 107 = 1098 \div 27 = 18$
 1 probe

Question 4:

0 25
 1 0
 2 21
 3 33
 4 14
 5 25
 6 42
 7 9
 8 6
 9 5
 10 3
 11 24
 12 7

↓
Resize $13 \cdot 2 = 27$

0 25 20
 1 0 21
 2 21 22
 3 33 23
 4 14 24
 5 25 25
 6 42 26
 7 9
 8 6
 9 5
 10 3
 11 24
 12 7
 13
 14
 15
 16
 17
 18 107
 19