Part 1. Joan had 9 dimes and 7 pennies in her pocket. How much money did she have?

Part 2. Joan lost 45 cents out of a hole in her pocket. How much money does she have now?

Part 3. Joan was really sad when she lost her money. Then her grandma gave her 5 dimes. How much money does she have now?

Ideas for Assessing Student Thinking:

Part 1 (scoring to NBT standards): Students may use a variety of strategies to solve this problem. Make note of which strategy they use. Count by 10s would be satisfactory progress toward the end of the year goal.

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| Count by 1s | Count by 10s | Direct Place Value |
| Student may draw out all the dimes represented with ones and the pennies represented with ones. Student would count them all by ones.  ||||||||||  ||||||||||  ||||||||||  ||||||||||  |||||||||| 97  ||||||||||  ||||||||||  ||||||||||  ||||||||||  ||||||| | Student may represent dimes with a ten rod or a written ten. They may count by tens and then count by ones.  |||||||  10, 20, 30, 40, 50, 60, 70, 80, 90, 91, 92, 93, 94, 95, 96, 97 | Some students may know that 9 dimes would be 90 cents automatically. They would say:  9 groups of ten (or 9 dimes) would be 90, + 7 cents,  so 90 + 7 = 97  or 9 x 10 + 7 = 97 |

Part 2 (scoring to 2.NBT.5 and 2.OA.1): Students may use a variety of strategies to solve this problem. Make note of which strategy they use. 2.NBT.5 says they should use properties of operations, place value and the relationship between addition and subtraction to solve addition and subtraction problems as the end of the year goal. 2.OA.1 does not specify what strategies students must use.

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| Direct Model by Ones | Direct Model by Tens | Counting | Invented Strategies  (end of the year goal) |
| Students will make 97 with ones and mark off 45 ones.  10  ~~||||||||||~~  ~~||||||||||~~  ~~||||||||||~~  ~~||||||||||~~  ~~|||||~~||||| 52  ||||||||||  ||||||||||  ||||||||||  ||||||||||  ||||||| | Students will make 97 with tens and ones.  10  10  10  10  10  10  10  10  ||~~|||||~~  52 | Students will count back 45 from 97  97, 96, 95, 94, 93, 92, 91, 90, 89, 88, 87, 86, 85, 84, 83, 82, 81, 80, 79, 78, 77, 76, 75, 74, 73, 72, 71, 70, 69, 68, 67, 66, 65, 64, 63, 62, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52 | Students may use place value:  97 – 45  90 - 40 = 50  7 – 5 = 2  50 + 2= 52  Properties of operations:  97 – 10 87 -10 77-10 67 – 10 57 – 5 52  The relationship between addition and subtraction:  45 + 50 = 95  95 + 2 = 97  50 + 2 = 52 |

Part 3 (scoring to NBT standards): Students may use a variety of strategies to solve this problem. Make note of which strategy they use. Count by 10s would be satisfactory progress toward the end of the year goal. (scoring to 2.NBT.5 and 2.OA.1): Students may use a variety of strategies to solve this problem. Make note of which strategy they use. 2.NBT.5 says they should use properties of operations, place value and the relationship between addition and subtraction to solve addition and subtraction problems as the end of the year goal. 2.OA.1 does not specify what strategies students must use.

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| **Count by ones** to find the total for 5 dimes  ||||||||||  ||||||||||  ||||||||||  |||||||||| | | **Count by tens** to find the total for 5 dimes  10 20 30 40 50  10  10  10  10  10 | | **Direct Place Value**: Student may just know that 5 dimes is 50 cents.  I know 5 groups of 10 (or 5 dimes) is 50 cents.  5 x 10 = 50 | |
| **Direct Model with Ones:**  Students may make the 52 and 50 with ones and count them all.  ||  ||||||||||  ||||||||||  ||||||||||  ||||||||||  |||||||||| 102  ||||||||||  ||||||||||  ||||||||||  |||||||||| | **Direct Model with Tens:**  Students may make the 52 and 50 with tens and ones.  ||  10  10  10  10  10  10  10  10  10  10 | | **Counting**  Student may count on from 52, fifty times by ones.  52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72…102 | | **Invented strategies**  Student may use place value:  50 + 50 = 100  100 + 2 = 102  Properties of operations:  52 + 10 62 + 10  72 + 10 82 + 10  92 + 10 102 |