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| **Conceptual Meaning of Whole Number Addition and Subtraction** |
| Recognizes addition and subtraction situations and models concretely to add or subtract to 1000148 + 223 = ? | Models and symbolizes ways to solve problems to 1000148 + 223 = ? | Uses an understanding of place value to decompose both numbers to solve problems to 10 000“I subtracted the hundreds, the tens, and then the ones.” |
| **Observations/Documentation** |
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| **Conceptual Meaning of Whole Number Addition and Subtraction (cont’d)** |
| Uses an understanding of place value to add and subtract to 10 000 using the standard algorithm“I had 16 ones. So I traded 10 ones for 1 ten.” | Estimates to determine if answer to problem is reasonable 896 - 345 = ?“896 is close to 900. 345 is close to 350. 900 - 350 = 550. 550 is close to 551, the answer I calculated, so my answer is reasonable.” | Creates and solves addition and subtraction problems flexibly using a variety of strategies1874 raffle tickets were sold in advance. 227 more tickets were sold at the door. How many tickets were sold altogether? |
| **Observations/Documentation** |
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| **Estimating Sums and Differences** |
| Uses front-end estimation Estimate: 28 + 46 + 177 + 15820 + 40 + 100 + 100 = 260“I estimate about 260.” | Uses rounding to write each number to the nearest tenEstimate: 28 + 46 + 177 + 15830 + 50 + 180 + 160 = 420“I estimate about 420.” | Uses rounding and compensation Estimate: 28 + 46 + 177 + 158I’ll round two up and two down.30 + 40 + 170 + 160 = 400“I estimate about 420.” | Estimates flexibly to check reasonableness of solutions3123 + 1248 + 4169 + 1150 = 9690Estimate to check:123 + 169 is about 300, so 3123 + 4169 is about 7300.248 + 150 is about 400, so 1248 + 1150 is about 2400.7300 + 2400 is 9700.Since 9690 is close to 9700, the solution seems reasonable. |
| **Observations/Documentation** |
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