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| **Knowledge** |  | **Strategy** |
| **1. One more**  (3+1, 5+1…up to 9+1) | KN1  1N10 | Counting sequence (1,2,3,4,5,6,7,8,9..) |
| **2.Two more**  (1+2, 4+2…up to 8+2) | 1N1  1N10 | From knowing one more. |
| **3.Partners to 5**  (1+4, 2+3, 3+2, 4+1) | KN2  1N10 | Using 5 frames to count. |
| **3A. Unitizing 5**  (1+5, 2+5, 3 + 5, 4 + 5) |  | Ten frame (striking a line through the top), show me 8 with at least one full hand… |
| **4.Doubles less than 5**  (2+2, 3+3, 4+4…) | 1N9  1N10  2N10  3N10 | Counting, show with fingers… |
| **5.Near Doubles**  ( 3+4, 4+5) | 1N9  1N10  2N10  3N10 | Knowledge of doubles and one more/one less |
| **5B.Addition less than 10 (mixed)**  (4 + 2, 5 + 1, 3 + 2) |  | Review of all of above |
| **6.Partners to 10**  (1-9, 2-8, 3-7, 4-6, 5-5) | 1N9  1N10  2N10  3N10 | Ten frame, visualizing fingers, linking cube trains… |
| **7.Adding 10 to a number**  **(6+10, 3+10…)** | 1N9  1N10  2N10  3N10 | Using double ten frames, two sets of hands… |
| **8.Adding 9 to a number**  **(6+9, 3+9…)** | 1N9  1N10  2N10  3N10 | From knowing adding 10.  (one less) |
| **9.Adding 8 to a number**  (8+4, 8+3, 8+7…) | 1N9  1N10  2N10  3N10 | From knowing adding 10.  (two less) |
| **10.Adding doubles**  ( 6+6, 7+7, 8+8, 9+9) | 1N9  1N10  2N10  3N10 | Knowledge of 10, using hands to show 5 and 2 for 7 so 5 and 5 is 10 and 2 and 2 is 4 therefore 7 and 7 is 14 |
| **11.Adding near doubles**  (6+7, 5+6, 8+7..) | 1N9  1N10  2N10  3N10 | Knowledge of doubles. |
| **12.Adding 7 to a number**  (7+4, 7+5) | 1N9  1N10  2N10  3N10 | From knowing adding 10.  (3 less) |
| **12B. All basic addition facts** |  | To practice all strategies seen above. |
| **13.Adding 10,20,30,40,50…to any single digit number**  (20 + 8, 40 + 6) | 2N9  3N6 | Knowing what adding ten to a number does and extending it. |
| **13B. Adding 10 or 20 to any 2-digit multiple of 10,**  **Sums < 100** (60 + 20, 40 + 10) | 2N9, 3N6 | Basic addition facts one more, two more. |
| **13C. Adding 2-digit multiples of ten to 50 with sums < 100)**  (50 + 40, 50 + 30) | 2N9, 3N6 | Extension of basic addition facts unitizing 5 |
| **14. Adding multiples of 10 together** (40+30) | 2N9  3N6 | Knowledge of basic addition facts. Ex: 4 tens and 3 tens is 7 tens. 7 tens is 70 |
| **14B. Partners to 100 that are multiples of 10**  (40 + 60, 70 + 30) |  |  |
| **15. Adding a multiple of 10 with a 2-digit number** (50+47) sums less than 100 | 2N9  3N6 | Knowledge of addition facts and more…Ex: 5 tens and 4 tens is 90 and 6 more is 96. |
| **16. Adding a multiple of 10 with a teen number** (50+18) | 2N9  3N6 | This should be fast and automatic |
| **16A. Adding any 2-digit number with a single digit**  (58 + 7, 68 + 5) | 2N9  3N6 | This should be fast and automatic |
| **16B. Adding two, 2-digit numbers together with sums being a multiple of 10**  (26 + 34, 53 + 37) | 2N9  3N6 | This is a good transition because the ones make a ten. 20 + 30 is 50, 6 and 4 is 10, 50 and 10 is 60 |
| **17. Adding two, 2-digit numbers together with sums less than 100**  (46+38) | 2N9  3N6 | Knowledge of addition facts.  Ex: 4 tens and 3 tens is 70 6 and 8 is 14, 70 and 14 is 84. |
| **18. Addition of 2-digit multiples of 10 with sums above 100**  (90+80, 60+60, 40+70…) | 3N9 | Addition fact strategies, Adding 90,80,doubles,doubles+/-10, 70…be careful for common mistake of 60+80=114 |
| **19. Addition of a large 2-digit multiple of 10 with a 2-digit number (sum greater than 100)**  (70+85…) | 3N9 | Addition fact strategies. 7 tens and 8 tens is 15 tens or 150 and 5 more, 155. |
| **20. Addition of a three-digit multiple of 10 with a teen number**  (170+15…) | 3N9 | This should be fast and automatic |
| **21. Addition of two, 2-digit numbers with sums above 100**  (47+85…) | 3N9 | Addition of a three-digit multiple of 10 with a teen number  (170+15…) |
| **22. Addition of a three-digit multiple of 10 with any 2-digit number**  (170+75…) | 3N9 | Here you would expect students to add the hundred and the 70+70 as 145 for a total of 245 |
| **23. Addition of a 3-digit multiple of 10 with any 2-digit number.**  (270 + 74) | 3N9 | Place value understanding you would expect students to add the two hundred and the 70 + 74 as 144 for a total o 344 |
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| **24. Addition of 3-digit multiples of 100 together** (300 + 400) | 3N9 | Knowledge of basic addition facts. Ex: 3 hundreds and 4 hundreds is 700, 60 and 70 is 130, 700 and 130 is 830. |
| **25. Adding two, 3-digit numbers that are multiples of ten.**  (360 + 470) | 3N9 | Knowledge of what 14 tens equals therefore 140 and 54 is 194. |
| **26. Adding different amounts of tens and ones.**  (14 tens and 54 ones) | 3N9 |  |
| **27. Addition of a three-digit multiple of 10 with any 2-digit multiple of 10 giving sums less than 1000**  (670 + 80…) | 3N9 | This is a great test to see if students have place value understanding |
| **27a. Addition of a three-digit multiple of 10 to any 2-digit number giving sums less than 1000.**  **(380 + 89)** |  |  |
| **27B.Addition of a three-digit number with any 2-digit number**  (178+75…) | 4N3 | Addition facts and multiples of 100. |
| **28. Adding multiples of 100 that give a sum larger than 1000**  (600+700…400+800…) | 4N3 | Knowledge of basic addition facts. Ex: 8 hundreds and 4 hundreds is 1200, 60 and 70 is 130, 1200 and 130 is 1330. |
| **29. Adding two 3-digit numbers that are multiples of ten with sums above 1000.**  (860 + 470) \*be careful with numbers just above 1000.ex: 360 and 650…) | 4N3 | Great question to see how well students understand place value |
| **30. Addition of a three-digit number with any 2-digit number giving sums higher than 1000**  (970+70…) | 4N3 | Addition facts |
| **31. Adding multiples of 1000 that give a sum less than 10 000**  (6000+3000…2000+5000…) | 4N3 | Knowledge of basic addition facts. Ex: 4 thousands and 3 thousands is 7000, 600 and 700 is 1300, 7000 and 1300 is 8300. |
| **32. Adding two 4-digit multiples of 100 that give a sum less than 10 000.**  ( 4600 + 3700) | 5 | Addition facts and multiples of 1000. |
| **33. Adding multiples of 1000 that give a sum larger than 10 000**  ( 6000+7000…4000+8000…) | 5 |  |
| **33A. Adding multiples of 1000 and 100 to multiples of 1000 and 100 that have a sum that is greater than 10 000**  **(6700 + 5600)** | 5 | 6700 + 5600, Add thousands first, then hundreds and find the sum of both answers |
| **Go to cards 40 A** | 5N1, 5N2 |  |
| **34. Adding a 5-digit multiple of 1 000 with a 4-digit multiple of 1000 that gives a sum < 100 000 100 000**  (16 000+7000, 78 000+8000…) | 5N1. 5N2 | 16 thousand and 7 thousand is 23 thousand or 23 000 |
| **35. Adding 5-digit multiples of 1000, with sums < 100 000**  (16 000+67 000…  78 000+18 000…) | 5N1, 5N2 | 10 000 + 60 000 = 70 000  6000 + 7000 = 13 000  70 000 + 13 000 = 83 000 |
| **36. Adding different combinations of different multiples of 10,100,1000,10 000, sums < 100 000**  ( 14 605 + 38 009) | 5N1, 5N2 |  |
| **37. Adding a 5-digit multiple of 1000 with a 4-digit multiple of 1000 that five a sum> 100 000**  (96 000+7000…98 000+8000…) | 5N1, 5N2 |  |
| **37B. Adding multiples of 10 000 with sums above 100 000**  **(80 000 + 50 000)** | 5N1, 5N2 |  |
| **38. Adding multiples of 10 000 that give a sum higher than**  **100 000**  (76 000+67 000…  78 000+88 000…) | 5N1, 5N2 |  |
| **39. Adding multiples of 100 000 that give a sum less than**  **1 000 000**  (200 000+500 000… | 4N11 | Basic addition facts with fluency and place value understanding  6 tenths and 3 tenths is 9 tenths which is 0.9. |
| **39AA. Adding multiples of 100 000 to multiples of 1000. (560 000 + 8000)** | 5 |  |
| **39A. Adding multiples of 100 000 to multiples of 1000. ( 345 000 + 7000)** | 5 |  |
| **39B. Adding multiples of 100 000 with sums more than 1 000 000 (700 000 + 600 000)** | 6 |  |
| **39C. Adding numbers with hundred thousands and ten thousands (740 000 + 670 000)** | 6 |  |
| **39D. Adding big numbers**  **(2.5 million + 360 000)** | 6 |  |
| **40. Partners to 1 with multiples of tenths (compatible numbers)**  **0.5 + 0.4 + 0.5** | 5 | Students should mentally be able to spot the partners to 1and then add the remaining number |
| **40A. Adding multiples of tenths with sums less than 1.**  (0.6 + 0.3) | 4N9  5N8 | 6 + 3 = 9, so 6 tenths and 3 tenths = 9 tenths |
| **40B. Partner to 1 with tenths only**  (0.7 + 0.3 = 1 not 0.10) | 4N11 | Relate to partners to 10 and the understanding that 10 tenths is equal to 1. |
| **41. Adding multiples of tenths < 1 that give sums > 1.**  ( 0.8 + 0.3, 0.5 + 0.8) | 4N11 | 5 tenths and 8 tenths is 13 tenths which is greater than 1, so 1.3 |
| **41A. Adding a 2-digit multiple of tenth with a whole number.**  (2.4 + 6 = 8.4) | 4N11 | Great question to see how well students understand place value. |
| **41B. Adding multiples of tenths that give sums < 10**  (5.6 + 3.6) | 4N11  5N11 | Knowing that 5 and 3 make 8 and 6 tenths and 6 tenths make 1.2; 8 + 1.2 = 9.2 |
| **42. Adding numbers that contain tenths.**  (5.6 + 8.8) |  | Here it is important to focus on place value 5 + 8 =13 and  0.6 +0.8 is the same as 6 tenths + 8 tenths that gives 14 tenths and that is 1.4  13 + 1.4 = 14.4 |
| **Go back to cards number 34** |  |  |
| **43. Adding multiples of hundreds with sums < 0.1**  **( 0.06 + 0.03)** | 4N11, 5N11 | Addition facts  6 hundredths and 3 hundredths is 9 hundredths which is 0.09. |
| **43A. Adding multiples of hundreds with sums > 0.1.**  (0.05 + 0.08) | 4N11  5N11 | 5 hundredths and 8 hundredths is 13 hundredths which is 0.13 |
| **44. Partners to 1 with hundredths**  (0.45+\_\_\_\_=1) | 4N11  5N11 | Partners to 100. This is based on the understanding that 100 hundredths is equivalent to 1. Here again language is crucial. |
| **45. Adding tenths with hundredths**  (0.4 + 0.14) | 4N11  5N11 | Looking at the tenths first, 4 tenths plus 1 tenth = 5 tenths or 0.5 and 4 hundredths more or 0.04 more therefore 0.5 + 0.04 = 0.54 |
| **46. Adding multiples of hundredths together with sums > 1**  (0.56 + 0.78) | 4N11  5N11 | Looking at the tenths first, 5 tenths + 7 tenths = 12 tenths or 1.2 and 8 hundredths + 6 hundredths = 14 hundredths or 0.14 that leaves 1.2 + 0.14=1.34 |
| **47. Adding different combinations of tenths and hundredths always reasoning out place value.**  ( 4.08 +13.57) | 4N11  5N11 | 17 + 0.5 + 0.15 = 17.65 |
| **48. Add different combinations of hundredths and thousands**  (17 + 0.5 + 0.15) |  | Place value understanding |

