

Problem Set Alpha

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad \square 4 \square \\ - 8 \square \\ \hline 558 \end{array}$$

5 solutions:

$$640 - 82 = 558$$

$$641 - 83 = 558$$

$$643 - 85 = 558$$

$$645 - 87 = 558$$

$$647 - 89 = 558$$

$$\begin{array}{r} 2) \quad \square 4 \square \\ - 8 \square \\ \hline 859 \end{array}$$

5 solutions:

$$940 - 81 = 859$$

$$941 - 82 = 859$$

$$942 - 83 = 859$$

$$945 - 86 = 859$$

$$946 - 87 = 859$$

$$\begin{array}{r} 3) \quad \square 4 \square \\ - 8 \square \\ \hline 659 \end{array}$$

4 solutions:

$$740 - 81 = 659$$

$$741 - 82 = 659$$

$$742 - 83 = 659$$

$$745 - 86 = 659$$

Problem Set Beta

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

<p>1) $\begin{array}{r} 6\square\square \\ - 4\square \\ \hline 638 \end{array}$</p> <p>7 solutions:</p> <p>$678 - 40 = 638$ $679 - 41 = 638$ $680 - 42 = 638$ $681 - 43 = 638$ $683 - 45 = 638$ $685 - 47 = 638$ $687 - 49 = 638$</p>	<p>2) $\begin{array}{r} 6\square\square \\ - 4\square \\ \hline 642 \end{array}$</p> <p>6 solutions:</p> <p>$682 - 40 = 642$ $683 - 41 = 642$ $685 - 43 = 642$ $687 - 45 = 642$ $689 - 47 = 642$ $690 - 48 = 642$</p>	<p>3) $\begin{array}{r} 6\square\square \\ - 4\square \\ \hline 649 \end{array}$</p> <p>5 solutions:</p> <p>$689 - 40 = 649$ $690 - 41 = 649$ $691 - 42 = 649$ $692 - 43 = 649$ $697 - 48 = 649$</p>
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Problem Set Gamma

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

<p>1) $\begin{array}{r} 1\square\square \\ - \square 4 \\ \hline 106 \end{array}$</p> <p>5 solutions:</p> <p>$130 - 24 = 106$ $160 - 54 = 106$ $170 - 64 = 106$ $180 - 74 = 106$ $190 - 84 = 106$</p>	<p>2) $\begin{array}{r} 1\square\square \\ - \square 4 \\ \hline 133 \end{array}$</p> <p>5 solutions:</p> <p>$137 - 4 = 133$ $157 - 24 = 133$ $167 - 34 = 133$ $187 - 54 = 133$ $197 - 64 = 133$</p>	<p>3) $\begin{array}{r} 1\square\square \\ - \square 4 \\ \hline 76 \end{array}$</p> <p>4 solutions:</p> <p>$130 - 54 = 76$ $150 - 74 = 76$ $160 - 84 = 76$ $170 - 94 = 76$</p>
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Problem Set Delta

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad \square 1 \square \\ - 6 \square \\ \hline 748 \end{array}$$

5 solutions:

$$810 - 62 = 748$$

$$812 - 64 = 748$$

$$813 - 65 = 748$$

$$815 - 67 = 748$$

$$817 - 69 = 748$$

$$\begin{array}{r} 2) \quad \square 1 \square \\ - 6 \square \\ \hline 449 \end{array}$$

4 solutions:

$$512 - 63 = 449$$

$$513 - 64 = 449$$

$$517 - 68 = 449$$

$$518 - 69 = 449$$

$$\begin{array}{r} 3) \quad \square 1 \square \\ - 6 \square \\ \hline 252 \end{array}$$

4 solutions:

$$312 - 60 = 252$$

$$314 - 62 = 252$$

$$317 - 65 = 252$$

$$319 - 67 = 252$$

Problem Set Epsilon

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad 6\square\square \\ - \quad \square 7 \\ \hline 588 \end{array}$$

5 solutions:

$$605 - 17 = 588$$

$$615 - 27 = 588$$

$$625 - 37 = 588$$

$$635 - 47 = 588$$

$$685 - 97 = 588$$

$$\begin{array}{r} 2) \quad 6\square\square \\ - \quad \square 7 \\ \hline 611 \end{array}$$

5 solutions:

$$618 - 7 = 611$$

$$628 - 17 = 611$$

$$638 - 27 = 611$$

$$648 - 37 = 611$$

$$658 - 47 = 611$$

$$\begin{array}{r} 3) \quad 6\square\square \\ - \quad \square 7 \\ \hline 603 \end{array}$$

5 solutions:

$$620 - 17 = 603$$

$$630 - 27 = 603$$

$$640 - 37 = 603$$

$$650 - 47 = 603$$

$$690 - 87 = 603$$

Problem Set Zeta

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad 8\square\square \\ - \quad \square 5 \\ \hline 794 \end{array}$$

5 solutions:

$$809 - 15 = 794$$

$$819 - 25 = 794$$

$$829 - 35 = 794$$

$$839 - 45 = 794$$

$$869 - 75 = 794$$

$$\begin{array}{r} 2) \quad 8\square\square \\ - \quad \square 5 \\ \hline 827 \end{array}$$

5 solutions:

$$832 - 5 = 827$$

$$842 - 15 = 827$$

$$862 - 35 = 827$$

$$872 - 45 = 827$$

$$892 - 65 = 827$$

$$\begin{array}{r} 3) \quad 8\square\square \\ - \quad \square 5 \\ \hline 776 \end{array}$$

4 solutions:

$$801 - 25 = 776$$

$$821 - 45 = 776$$

$$841 - 65 = 776$$

$$871 - 95 = 776$$

Problem Set Eta

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad \square\square 6 \\ - \quad \square 8 \\ \hline 78 \end{array}$$

6 solutions:

$$\begin{aligned} 96 - 18 &= 78 \\ 106 - 28 &= 78 \\ 126 - 48 &= 78 \\ 136 - 58 &= 78 \\ 156 - 78 &= 78 \\ 176 - 98 &= 78 \end{aligned}$$

$$\begin{array}{r} 2) \quad \square\square 6 \\ - \quad \square 8 \\ \hline 8 \end{array}$$

5 solutions:

$$\begin{aligned} 26 - 18 &= 8 \\ 36 - 28 &= 8 \\ 46 - 38 &= 8 \\ 56 - 48 &= 8 \\ 106 - 98 &= 8 \end{aligned}$$

$$\begin{array}{r} 3) \quad \square\square 6 \\ - \quad \square 8 \\ \hline 418 \end{array}$$

6 solutions:

$$\begin{aligned} 426 - 8 &= 418 \\ 436 - 18 &= 418 \\ 456 - 38 &= 418 \\ 476 - 58 &= 418 \\ 496 - 78 &= 418 \\ 516 - 98 &= 418 \end{aligned}$$

Problem Set Theta

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad \square 6 \square \\ - 3 \square \\ \hline 29 \end{array}$$

4 solutions:

$$61 - 32 = 29$$

$$64 - 35 = 29$$

$$67 - 38 = 29$$

$$68 - 39 = 29$$

$$\begin{array}{r} 2) \quad \square 6 \square \\ - 3 \square \\ \hline 226 \end{array}$$

4 solutions:

$$260 - 34 = 226$$

$$261 - 35 = 226$$

$$264 - 38 = 226$$

$$265 - 39 = 226$$

$$\begin{array}{r} 3) \quad \square 6 \square \\ - 3 \square \\ \hline 234 \end{array}$$

4 solutions:

$$264 - 30 = 234$$

$$265 - 31 = 234$$

$$268 - 34 = 234$$

$$269 - 35 = 234$$

Problem Set Iota

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad 3\square\square \\ - 6\square \\ \hline 322 \end{array}$$

5 solutions:

$$382 - 60 = 322$$

$$384 - 62 = 322$$

$$387 - 65 = 322$$

$$389 - 67 = 322$$

$$390 - 68 = 322$$

$$\begin{array}{r} 2) \quad 3\square\square \\ - 6\square \\ \hline 252 \end{array}$$

6 solutions:

$$312 - 60 = 252$$

$$314 - 62 = 252$$

$$317 - 65 = 252$$

$$319 - 67 = 252$$

$$320 - 68 = 252$$

$$321 - 69 = 252$$

$$\begin{array}{r} 3) \quad 3\square\square \\ - 6\square \\ \hline 318 \end{array}$$

6 solutions:

$$378 - 60 = 318$$

$$379 - 61 = 318$$

$$380 - 62 = 318$$

$$382 - 64 = 318$$

$$385 - 67 = 318$$

$$387 - 69 = 318$$

Problem Set Kappa

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad \square 2 \square \\ - 1 \square \\ \hline 11 \end{array}$$

6 solutions:

$$\begin{array}{l} 24 - 13 = 11 \\ 25 - 14 = 11 \\ 26 - 15 = 11 \\ 27 - 16 = 11 \\ 28 - 17 = 11 \\ 29 - 18 = 11 \end{array}$$

$$\begin{array}{r} 2) \quad \square 2 \square \\ - 1 \square \\ \hline 8 \end{array}$$

5 solutions:

$$\begin{array}{l} 23 - 15 = 8 \\ 24 - 16 = 8 \\ 25 - 17 = 8 \\ 26 - 18 = 8 \\ 27 - 19 = 8 \end{array}$$

$$\begin{array}{r} 3) \quad \square 2 \square \\ - 1 \square \\ \hline 311 \end{array}$$

5 solutions:

$$\begin{array}{l} 325 - 14 = 311 \\ 326 - 15 = 311 \\ 327 - 16 = 311 \\ 328 - 17 = 311 \\ 329 - 18 = 311 \end{array}$$

Problem Set Lambda

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad 9\square\square \\ - 3\square \\ \hline 882 \end{array}$$

6 solutions:

$$912 - 30 = 882$$

$$914 - 32 = 882$$

$$916 - 34 = 882$$

$$917 - 35 = 882$$

$$918 - 36 = 882$$

$$920 - 38 = 882$$

$$\begin{array}{r} 2) \quad 9\square\square \\ - 3\square \\ \hline 944 \end{array}$$

6 solutions:

$$974 - 30 = 944$$

$$975 - 31 = 944$$

$$976 - 32 = 944$$

$$978 - 34 = 944$$

$$980 - 36 = 944$$

$$981 - 37 = 944$$

$$\begin{array}{r} 3) \quad 9\square\square \\ - 3\square \\ \hline 926 \end{array}$$

6 solutions:

$$956 - 30 = 926$$

$$957 - 31 = 926$$

$$958 - 32 = 926$$

$$960 - 34 = 926$$

$$961 - 35 = 926$$

$$964 - 38 = 926$$

Problem Set Mu

If each digit 0-9 can only be used once per problem, how many different ways can you get to the answer?

$$\begin{array}{r} 1) \quad 9\square\square \\ - \quad \square 7 \\ \hline 911 \end{array}$$

6 solutions:

$$\begin{aligned} 918 - 7 &= 911 \\ 928 - 17 &= 911 \\ 938 - 27 &= 911 \\ 948 - 37 &= 911 \\ 958 - 47 &= 911 \\ 968 - 57 &= 911 \end{aligned}$$

$$\begin{array}{r} 2) \quad 9\square\square \\ - \quad \square 7 \\ \hline 891 \end{array}$$

6 solutions:

$$\begin{aligned} 908 - 17 &= 891 \\ 918 - 27 &= 891 \\ 928 - 37 &= 891 \\ 938 - 47 &= 891 \\ 948 - 57 &= 891 \\ 958 - 67 &= 891 \end{aligned}$$

$$\begin{array}{r} 3) \quad 9\square\square \\ - \quad \square 7 \\ \hline 874 \end{array}$$

5 solutions:

$$\begin{aligned} 901 - 27 &= 874 \\ 921 - 47 &= 874 \\ 931 - 57 &= 874 \\ 941 - 67 &= 874 \\ 961 - 87 &= 874 \end{aligned}$$