Festival of Problems #1
What number is on the Minicomputer?

Put the number on the Minicomputer.
Label the dots.

Complete.

\[
\begin{align*}
6 + 2 &= 8 \\
25 + 2 &= 27 \\
2 + 7 &= 9 \\
2 + 37 &= 39 \\
19 + 2 &= 21 \\
49 + 2 &= 51
\end{align*}
\]

\[
\begin{align*}
50 + 2 &= 52 \\
2 + 38 &= 40 \\
98 + 2 &= 100 \\
24 + 2 &= 26 \\
80 + 2 &= 82 \\
81 + 2 &= 83
\end{align*}
\]
Complete this numeral chart.

<table>
<thead>
<tr>
<th>51</th>
<th>53</th>
<th></th>
<th>56</th>
<th>57</th>
<th>59</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>62</td>
<td>63</td>
<td>65</td>
<td></td>
<td>68</td>
</tr>
<tr>
<td>70</td>
<td>72</td>
<td></td>
<td>75</td>
<td>78</td>
<td>79</td>
</tr>
<tr>
<td>80</td>
<td>82</td>
<td>84</td>
<td>85</td>
<td>87</td>
<td>88</td>
</tr>
<tr>
<td>90</td>
<td>92</td>
<td>93</td>
<td>95</td>
<td>96</td>
<td>99</td>
</tr>
<tr>
<td>102</td>
<td>103</td>
<td>106</td>
<td>107</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>113</td>
<td>114</td>
<td>117</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>124</td>
<td>126</td>
<td>127</td>
<td>129</td>
<td></td>
</tr>
</tbody>
</table>
Label the dots.

Complete.

\[
\begin{array}{ccccccc}
16 & -2 & 36 & -2 & 20 & -2 & 40 & -2 \\
& 52 & -2 & 64 & -2 \\
19 & -2 & 49 & -2 & 11 & -2 & 31 & -2 \\
& 57 & -2 & 65 & -2 \\
\end{array}
\]
<table>
<thead>
<tr>
<th>What number is on the Minicomputer?</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Number 1]</td>
</tr>
<tr>
<td>![Number 3]</td>
</tr>
<tr>
<td>![Number 5]</td>
</tr>
<tr>
<td>Put the number on the Minicomputer.</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
<tr>
<td>![Number 7]</td>
</tr>
<tr>
<td>![Number 9]</td>
</tr>
<tr>
<td>![Number 11]</td>
</tr>
<tr>
<td>![Number 13]</td>
</tr>
</tbody>
</table>
Complete the multiplication facts for an array of dots.

\[
\begin{array}{c}
\bullet \bullet \bullet \\
\bullet \bullet \bullet \\
\end{array}
\quad 2 \times 3 = \underline{\hspace{1cm}}
\quad 3 \times 2 = \underline{\hspace{1cm}}
\]

\[
\begin{array}{c}
\bullet \bullet \bullet \bullet \\
\bullet \bullet \bullet \bullet \\
\end{array}
\quad 3 \times 4 = \underline{\hspace{1cm}}
\quad 4 \times 3 = \underline{\hspace{1cm}}
\]

Write multiplication facts for the array of dots.

\[
\begin{array}{c}
\bullet \bullet \bullet \bullet \bullet \bullet \\
\bullet \bullet \bullet \bullet \bullet \bullet \\
\end{array}
\quad \underline{\hspace{1cm}} \\
\begin{array}{c}
\bullet \bullet \bullet \bullet \bullet \bullet \\
\bullet \bullet \bullet \bullet \bullet \bullet \\
\end{array}
\quad \underline{\hspace{1cm}} \\
\begin{array}{c}
\bullet \bullet \bullet \bullet \bullet \bullet \\
\bullet \bullet \bullet \bullet \bullet \bullet \\
\end{array}
\quad \underline{\hspace{1cm}}
\]

7
How much money?

Alice buys three stickers and each sticker costs 16¢. Color the coins she can use to pay for the stickers.

How much does she spend? __________
Label the dots in this picture with these numbers:

12, 15, 23, 30

Put three more numbers of your choice in the picture.
Build an arrow road from 0 to 62 using +10 and +1 arrows.
Write number facts for each number. One is done for you.

20
\[ 2 \times 10 = 20 \]

100
\[ 200 \div 2 = 100 \]

36
\[ 24 + 12 = 36 \]

75
\[ 80 - 5 = 75 \]
Label the dots.

Complete.

\[2 \times 5 = \underline{\phantom{0}}\] \[2 \times 7 = \underline{\phantom{0}}\]

\[2 \times 25 = \underline{\phantom{0}}\] \[2 \times 4 = \underline{\phantom{0}}\]

\[2 \times 24 = \underline{\phantom{0}}\] \[2 \times 11 = \underline{\phantom{0}}\]

\[2 \times 200 = \underline{\phantom{0}}\] \[2 \times 204 = \underline{\phantom{0}}\]
Red followed by blue is gray.

Draw the missing gray arrows (use a pencil).
Complete the addition calculations.

\[
\begin{array}{c}
\text{25} \\
\underline{+15} \\
\hline
50
\end{array} \quad \begin{array}{c}
\text{52} \\
\underline{+64} \\
\hline
116
\end{array}
\]

\[
\begin{array}{c}
\text{350} \\
\underline{+240} \\
\hline
590
\end{array} \quad \begin{array}{c}
\text{416} \\
\underline{+322} \\
\hline
738
\end{array}
\]

\[
\begin{array}{c}
\text{512} \\
\underline{+329} \\
\hline
841
\end{array} \quad \begin{array}{c}
\text{321} \\
\underline{+284} \\
\hline
605
\end{array}
\]
Color one-half of each shape red.
Draw all the +5 arrows. One is done for you.

Complete.

\[
\begin{array}{cccc}
13 & +5 & 16 & +5 \\
& & 38 & +5 \\
& & & 91 & +5 \\
14 & +5 & 19 & +5 \\
& & 34 & +5 \\
& & & 59 & +5 \\
\end{array}
\]
Elf is a secret number.
Elf is one of these numbers on the Minicomputer.

Odd numbers

Less than 500

Elf is in this string picture.

Who is Elf? __________
Label the dots.

Complete.

\[
\begin{align*}
19 & - 3 \\
53 & - 3 \\
36 & - 3 \\
10 & - 3 \\
21 & - 3 \\
42 & - 3 \\
\end{align*}
\]

\[
\begin{align*}
16 & + 5 \\
45 & + 5 \\
58 & + 5 \\
37 & + 5 \\
89 & + 5 \\
70 & + 5 \\
\end{align*}
\]
Five children each have a rock collection. They record the number of rocks in their collections with tally marks.

<table>
<thead>
<tr>
<th>Barry</th>
<th>Nina</th>
<th>Carol</th>
<th>Matt</th>
<th>Wade</th>
</tr>
</thead>
<tbody>
<tr>
<td>⌁</td>
<td>⌁</td>
<td>⌁</td>
<td>⌁</td>
<td>⌁</td>
</tr>
<tr>
<td>⌁</td>
<td>⌁</td>
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</tr>
<tr>
<td>⌁</td>
<td>⌁</td>
<td>⌁</td>
<td>⌁</td>
<td>⌁</td>
</tr>
</tbody>
</table>

List the children in order from smallest to largest rock collection.

_________  _________  _________  _________  _________  _________
smallest        _________        _________        _________        _________        _________        largest

Wade and Matt combine their collections. How many rocks do they have together? __________

Carol gives 10 rocks to Nina. How many rocks will Carol have? _________ How many rocks will Nina have? _________
Label the dots.

Complete.

\[
\begin{array}{cccccc}
202 & +10 & 43 & +10 & 167 & +10 \\
\hline
50 & +10 & 174 & +10 & 10 & +90 \\
\hline
10 & +31 & 228 & +10 & 79 & +10 \\
\hline
\end{array}
\]
Complete these rows of a numeral chart.

<table>
<thead>
<tr>
<th>120</th>
<th>121</th>
<th>124</th>
<th>127</th>
<th>129</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>131</td>
<td>132</td>
<td>135</td>
<td>137</td>
</tr>
<tr>
<td>140</td>
<td></td>
<td>143</td>
<td>144</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>152</td>
<td></td>
<td>155</td>
<td>156</td>
</tr>
</tbody>
</table>

Complete these pieces of a numeral chart.
Dora buys one paper and one folder. How much? __________

Eric spent 40¢. What did he buy? __________

How much would one pencil, one eraser, and one folder cost? __________

Kasia spent 50¢ on three items. What did she buy? __________

Justin has 75¢. He buys two items and gets 30¢ change. What does he buy? __________
Put 100 on the Minicomputer in four different ways.

Put 20 on the Minicomputer in four different ways.
Put these numbers in the string picture.

5  10  13  20  24
Label the dots.
Build an arrow road from 0 to 20 using $2x$ and $+1$ arrows.
What number is on the Minicomputer?
Show ways to make 50¢. One way is given.

<table>
<thead>
<tr>
<th>Quarters</th>
<th>Dimes</th>
<th>Nickels</th>
</tr>
</thead>
<tbody>
<tr>
<td>25¢</td>
<td>10¢</td>
<td>5¢, 5¢</td>
</tr>
</tbody>
</table>

28
Label the dots.
Build an arrow road from 0 to 50 using +7 and –4 arrows.
Label the dots.
Put the six number cards \(1 \ 2 \ 3 \ 4 \ 5 \ 6\) in the spaces of this addition problem. Use all the cards, each card once.

\[
\begin{array}{cc}
  & \\
+ & \\
\end{array}
\]

What is the greatest sum you can get? __________
Explain.  

What is the least sum you can get? __________
Explain.  

How can you get a sum between 500 and 600? __________
Explain.  

How can you get a sum of 615? __________
Explain.