4, 3, 2, 1… WIN!

Put +, -, x or ÷ in the circles to complete the equations. There are lots of different ways to make these work… can you figure out other answers?

4 \bigcirc 3 \bigcirc 2 \bigcirc 1 = 10
4 \bigcirc 3 \bigcirc 2 \bigcirc 1 = 4
4 \bigcirc 3 \bigcirc 2 \bigcirc 1 = 8
4 \bigcirc 3 \bigcirc 2 \bigcirc 1 = 9
4 \bigcirc 3 \bigcirc 2 \bigcirc 1 = 5
4 \bigcirc 3 \bigcirc 2 \bigcirc 1 = 24
4 \bigcirc 3 \bigcirc 2 \bigcirc 1 = 25

Follow the Arrows
Which path is shortest from A to F? How many miles?

1. ___________ Miles

2. ___________ Miles

Submit Your Answers
Readers of all ages are invited to solve the MATHgazine Junior puzzles each month and submit answers to the PRIME Center.

Submit your solutions by e-mail to primecenter@asu.edu or by mail to Editor, PRIME MATHgazine Junior PO Box 875703, Tempe, AZ 85287 or fax to 480-727-0910. Deadline: October 15, 2010
Square Stumpers

Use the numbers 1-9 to fill all of the squares. Add them across and down to match the sums in the circles.

Level 1

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
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</tbody>
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Level 2

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>24</th>
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</thead>
<tbody>
<tr>
<td>19-10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15-9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20-17</td>
<td></td>
</tr>
</tbody>
</table>

Level 3

<table>
<thead>
<tr>
<th></th>
<th>21 ÷ 7</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>21 ÷ 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 ÷ 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 ÷ 2</td>
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<td></td>
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</table>

Level 4

<table>
<thead>
<tr>
<th>2 x 2 x 2</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 2 x 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 ÷ 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 ÷ 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Money Makes Sense

Use all of the numbers in the rectangle to complete the story. Be sure that the story makes sense.

1. Jack: “I have ____ dimes and ___ nickels in my pocket. Altogether, I have ___ cents.”
   Eric: “I have one less dime and one less nickel than you do. I have ___ dimes and ___ nickels.
   Altogether I have ___ cents.”

2. Anna: “I have ___ quarters, ___ dimes, and ___ pennies. I have ___ cents in all.”
   Elise: “I have ___ more quarters and ___ more pennies than you do. I don’t have any dimes. I have ___ quarters, ___ dimes, and ___ pennies for a total of ___ cents.”
Making Evens With Odds

1. Write odd numbers 1, 3, 5, 7, and 9 to fill in each set of squares. When you use a number, cross it off the list. What number is left? The number is ___.

List: 1 3 5 7 9

\[ \square + \square = 10 \]
\[ \square + \square = 10 \]

The number is ___.

Making Odds With Odds

1. Write odd numbers 1, 3, 5, 7, and 9 to fill in each set of squares. When you use a number, cross it off the list. What number is left?

List: 1 3 5 7 9

\[ \square - \square = 6 \]
\[ \square - \square = 6 \]

The number is ___.

List: 1 3 5 7 9

\[ \square \times \square = 5 \]
\[ \square \times \square = 63 \]

The number is ___.

List: 1 3 5 7 9

\[ \square \times \square = 21 \]
\[ \square \times \square = 45 \]

The number is ___.

List: 1 3 5 7 9

\[ \square \div \square = 3 \]
\[ \square \div \square = 7 \]

The number is ___.

List: 1 3 5 7 9