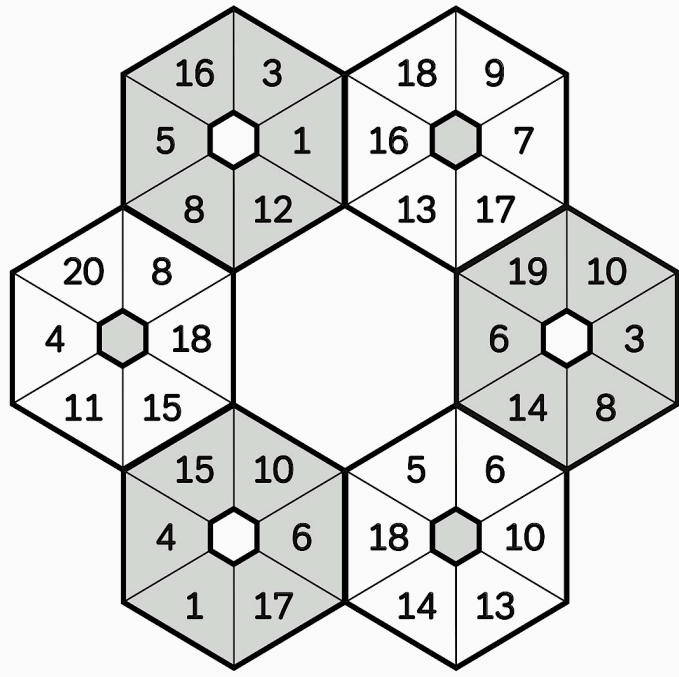


K-5 Teacher Workshop  
Fort Worth, TX  
July 10, 2017  
CAMT 2017

Greg Tang's



# Best Practices





# TangaRow™ : 2 Addends

---

Use 5 consecutive digits.

$$\begin{array}{r} \square \square \\ + \quad \square \\ \hline \square \square \end{array}$$

$$\begin{array}{r} \square \square \\ + \quad \square \\ \hline \square \square \end{array}$$

$$\begin{array}{r} \square \square \\ + \quad \square \\ \hline \square \square \end{array}$$

$$\begin{array}{r} \square \square \\ + \quad \square \\ \hline \square \square \end{array}$$

$$\begin{array}{r} \square \square \\ + \quad \square \\ \hline \square \square \end{array}$$

$$\begin{array}{r} \square \square \\ + \quad \square \\ \hline \square \square \end{array}$$

Tangy Tuesdays - weekly puzzles that develop reasoning & fluency skills.  
Free samples at: [gregtangmath.com/free](http://gregtangmath.com/free)



# TangaRow™ : 2 Addends

Use 7, 8, 9 & 10 consecutive digits.

$$\begin{array}{r}
 \square \square \\
 + \square \square \\
 \hline
 \square \square \square
 \end{array}$$

$$\begin{array}{r}
 \square 2 \square \\
 + \square \square 8 \\
 \hline
 5 \square 7
 \end{array}$$

$$\begin{array}{r}
 4 \square \square \\
 + \square \square \\
 \hline
 \square \square 3
 \end{array}$$

$$\begin{array}{r}
 \square 3 \square \\
 + \square \square 2 \\
 \hline
 \square, 0 \square 9
 \end{array}$$

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# Mental Math Challenge

---

1.

$$6 \times 857$$

\_\_\_\_\_

2.

$$8 \times 453$$

\_\_\_\_\_

3.

$$846 \div 9$$

\_\_\_\_\_

4.

$$5,184 \div 12$$

\_\_\_\_\_



# TangaRow™ : 2 Factors

Use 5, 6, 7, 8, 9 & 10 consecutive digits.

$$\begin{array}{r}
 \square \square \\
 \times \quad \square \\
 \hline
 \square \square
 \end{array}$$

$$\begin{array}{r}
 \square 8 \square \\
 \times \quad \square 3 \\
 \hline
 \square, 7 \square 6
 \end{array}$$

$$\begin{array}{r}
 \square \square \\
 \times \quad \square 3 \\
 \hline
 1 \square \square
 \end{array}$$

$$\begin{array}{r}
 4 \square 3 \\
 \times \quad \square 1 \\
 \hline
 \square, 7 9 \square
 \end{array}$$

$$\begin{array}{r}
 \square 2 \square \\
 \times \quad \square 5 \\
 \hline
 3 \square \square
 \end{array}$$

$$\begin{array}{r}
 \square 9 \square \\
 \times \quad \square 2 7 \\
 \hline
 1 \square, 0 \square 8
 \end{array}$$

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# TangaRow™ Fraction Puzzles

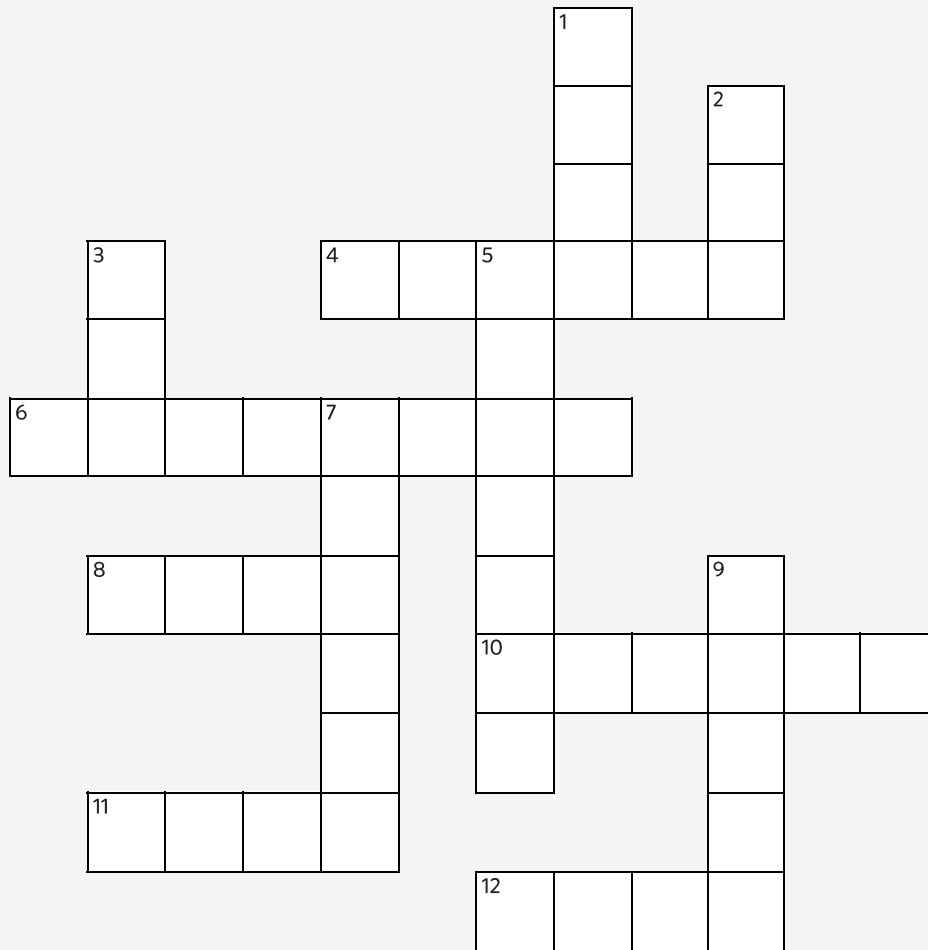
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Use 7 & 9 consecutive digits – a TangaRow.

$$\frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square \square}$$

$$\frac{\square}{\square} = \frac{\square}{\square \square} = \frac{\square \square}{\square \square}$$

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one degree greater two four true fourteen twelve five eighty nine three

## ACROSS

4. unit for measuring angles
6.  $42 \div 3$
8. 4,800 is closest to \_\_\_\_ thousand
10.  $4 \times 123 = 400 + \_\_\_ + 12$
11.  $.9 = \_\_\_ \text{ tenths}$
12.  $4,999 + 1,999 = 6,998$

## DOWN

1.  $3 \text{ fifths} + 1 \text{ fifth} = \_\_\_ \text{ fifths}$
2.  $25 \div 4$  has remainder \_\_\_\_
3. 26 is \_\_\_\_ times as much as 13
5.  $5/6$  is \_\_\_\_ than  $4/7$
7. 48 is a multiple of \_\_\_\_
9. "tri" in triangle and tricycle

# Snake

3.4.37

Name: \_\_\_\_\_

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Fill in each blank box in order, combining the numbers from the previous two boxes.

4	$\times 8$				$\div 5$		$\times 9$	
			$-20$		$-20$			$-60$
	$\div 2$						$\div 2$	
$\times 10$					$\times 10$		$\times 5$	
	$-30$			$\div 5$			$-10$	20

5	$\times 3$		$+13$		$\div 4$		$\times 6$	
								$-15$
	$\div 7$		$\times 9$		$-9$	63		
$+24$								$\div 3$
	$\times 4$		$\div 7$		$+29$		$\times 3$	



# Kakooma<sup>®</sup> Plus

Name: \_\_\_\_\_

5.1.1

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Puzzled? In each 9-number square, find the number that is the sum of 2 other numbers. Use all 9 sums to create 1 final puzzle and solve.

21	20	23	25	19	17	11	22	21
15	18	10	18	3	10	25	5	2
7	22	9	12	20	4	15	8	9
10	19	25	12	24	25	24	16	4
2	16	21	4	18	2	13	5	22
24	20	7	15	5	8	7	10	1
2	25	17	16	19	5	3	22	24
6	9	20	23	20	13	15	4	1
4	12	1	2	9	8	8	17	10




Final  
answer:

--

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# KAKOOMA<sup>®</sup> Addition Bingo

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<b>8</b>	<b>13</b>	<b>17</b>	<b>24</b>
<b>10</b>	<b>15</b>	<b>16</b>	<b>20</b>
<b>7</b>	<b>14</b>	<b>19</b>	<b>21</b>
<b>11</b>	<b>12</b>	<b>18</b>	<b>23</b>

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# NumTanga™

Name: \_\_\_\_\_

4.1.1

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In each empty box, write the matching value between adjacent cards.

$\frac{1}{8}$	
	seven eighths

$\frac{7}{8}$	
	four fifths

$\frac{5}{8}$	
	three fourths




$\frac{2}{3}$	
	one fourth

$\frac{4}{5}$	
	three eighths

$\frac{3}{8}$	
	two thirds




$\frac{5}{6}$	
	one sixth

$\frac{1}{2}$	
	one eighth

$\frac{1}{5}$	
	five eighths

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# Equato™

Name: \_\_\_\_\_

4.1.1

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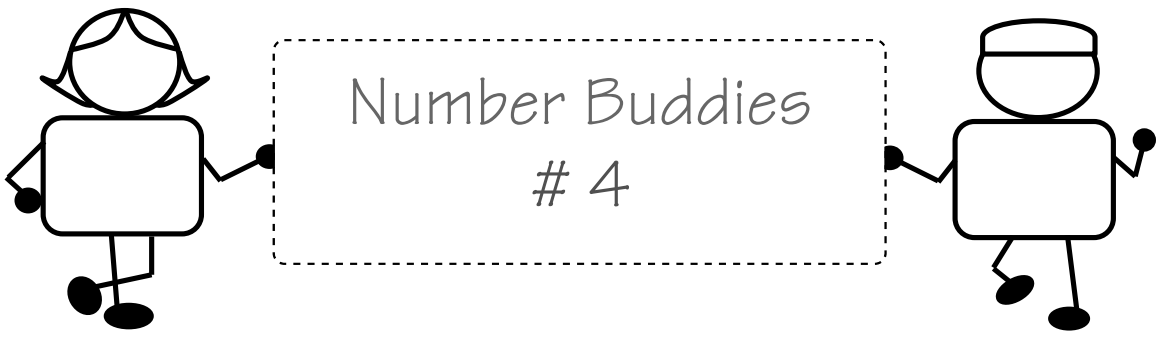
Fill in the empty boxes to make every horizontal and vertical equation correct. Use the correct order of operations and read left to right and top to bottom. Use every number in the number bank once.

### NUMBER BANK

2    3    4    5    6    7    8    9

	÷		+	7	=	
=		+		-		-
	-	1	+		=	6
×		=		=		÷
	÷	3	+	5	=	
-		+		×		=
	+	2	=	1	+	8

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3

Difference  
is 4

7

9

Less than  
8

5

10

Sum is 9

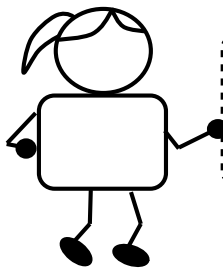
6

8

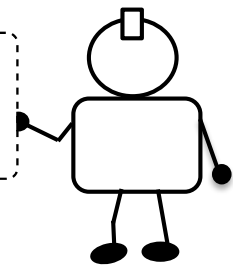
Even

1

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Number Buddies # 5



18

Less than  
20

36

15

Multiple  
of 6

1

20

Sum  $>$  70

43

42

Difference  
is 9

6

7

Product  
is 42

11

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## Reasoning Word Problems

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1. Sandra did \_\_\_\_ pull-ups in P.E. class. Jon did \_\_\_\_ times as many as Sandra. Together they did \_\_\_\_ pull-ups.  
(3, 4, 16)
2. There were \_\_\_\_ flowers in the garden. \_\_\_\_ of them were tulips and \_\_\_\_ times that many were roses.  
(6, 12, 84)
3. Katie had \_\_\_\_ nickels in her coin jar. She had \_\_\_\_ fewer quarters than nickels. Together the coins totaled \_\_\_\_ dollars.  
(2, 10, 15)
4. Jacob practiced piano for \_\_\_\_ minutes. He practiced guitar for \_\_\_\_ minutes longer than he practiced piano. All together, he practiced for one hour and \_\_\_\_ minutes.  
(10, 30, 40)

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