

20 Math Tasks For Mathematical Reasoning



Task 5: Arrange the digits 1-9 in the circles so that each row across and down has a sum of 15. **Hint:** Use the given 7 and 8 in the corners.

Task 13: Arrange each of the numbers 1-6 in the circles so that the sum of the numbers in each straight line is 10.

Task 19: Read the clues and figure out what pair of numbers works for both clues.

Clues		Mystery Pair	
sum	7	product	10
sum	9	quotient	2
difference	3	product	28
sum	11	difference	5
product	50	quotient	2

Task 20: Read the clues and figure out what pair of numbers works for both clues.

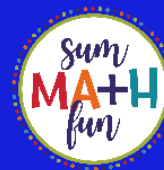
Clues		Mystery Pair	
difference	3	quotient	4
sum	13	difference	3
		quotient	2



Draw logical conclusions about mathematics



Apply deductive and inductive reasoning

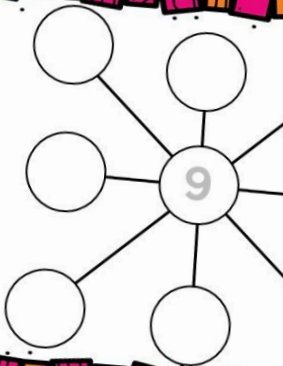


Targeted \leftrightarrow Mathematical Thinking Inside and Out

Leveled

1

Arrange the digits **1-9** so that each of the four lines of three circles has a **total of 18**. Use each digit only once!



15

Use the digits 0-9, each one time. Place in the spaces below so that each multiplication problem is correct.

$$\begin{array}{r} \square \\ \times 6 \\ \hline 36 \end{array} \quad \begin{array}{r} \square \\ \times \square \\ \hline 12 \end{array} \quad \begin{array}{r} \square \\ \times 4 \\ \hline 2\square \end{array} \quad \begin{array}{r} \square \\ \times \square \\ \hline \square 8 \end{array}$$

16

Use the digits 0-9, each one time. Place in the spaces below so that each multiplication problem is correct.

$$\begin{array}{r} 3 \\ \times \square \\ \hline 2\square \end{array} \quad \begin{array}{r} 18 \\ \times \square \\ \hline \square 0 \end{array} \quad \begin{array}{r} 3 \\ \times \square \\ \hline 1\square \end{array} \quad \begin{array}{r} \square \\ \times \square \\ \hline 24 \end{array} \quad \begin{array}{r} \square \\ \times \square \\ \hline 3\square \end{array}$$

17

▲ **Squaring** a number means you multiply it by itself.

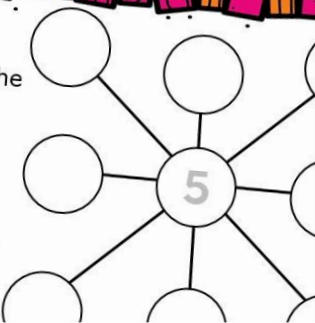
▲ Find the number that is squared to make each product.

$3 \times 3 = 9$	$\square \times \square = 16$	$\square \times \square = 961$
$\square \times \square = 25$	$\square \times \square = 400$	$\square \times \square = 1,849$
$\square \times \square = 100$	$\square \times \square = 625$	$\square \times \square = 2,500$
$\square \times \square = 225$	$\square \times \square = 900$	$\square \times \square = 1,600$

2

Arrange the digits **1-9** in the circles so that each line of three circles has the same total.

Hint: Place the digit **5** in the center.



18

▲ **Squaring** a number means you multiply it by itself.

▲ Find the number that is squared to make each product.

$3 \times 3 = 9$	$\square \times \square = 2,025$
$\square \times \square = 484$	$\square \times \square = 1,225$
$\square \times \square = 2,401$	$\square \times \square = 1,000$



Prints Great in Grayscale and Black & White

Leveled

3

With the digit 3 placed in the center circle, arrange the digits 1-8 (using the digit 3 again) only once in the other circles to make each line of digits **total 12!**

20

▲ Read the clues and figure out what pair of numbers works for both clues.

MYSTERY PAIR			
difference	3	quotient	4
sum	13	difference	3
product	63	quotient	2
difference	5	product	36
product	56	sum	15

4

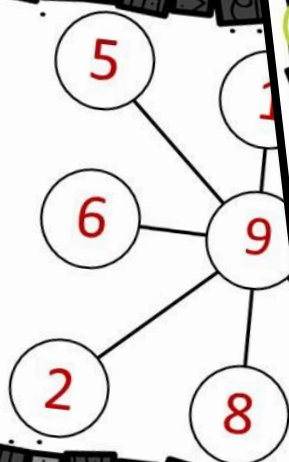
Arrange the

To save on colored ink but still have a pop of color, print in grayscale on colored paper

Answer Keys For All Challenges

1

Arrange the digits **1-9** so that each of the four lines of three circles has a **total of 18**. Use each digit only once!



19

Read the clues and figure out what pair of numbers works for both clues.

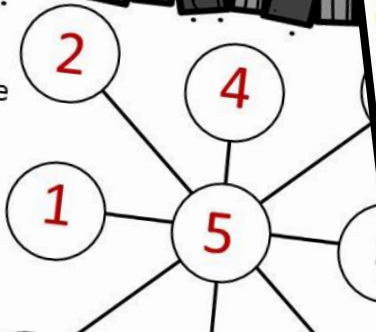
sum	7	product	10
sum	9	quotient	2
difference	3	product	28
sum	11	difference	5
product	50	quotient	2

MYSTERY PAIR

2	5
6	3
7	4
8	3
10	5

2

Arrange the digits **1-9** in the circles so that each line of circles has the same total.



Hint: Place the digit 5 in the

20

Read the clues and figure out what pair of numbers works for both clues.

difference	3	quotient	4
sum	13	difference	3
product	63	difference	2
	5	product	36

MYSTERY PAIR

4	1
8	5
9	7
9	4

