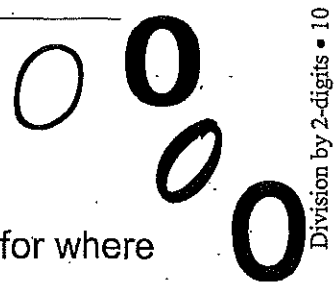


Rising 6th Grade

Optional Math

Summer Work

Name _____ Date _____



ZERO'S MY HERO!

Divide using division notation. Show all your steps. Watch out for where you need a zero in the quotient!

Division by 2-digits • 10

$24,146 \div 59$

$\$800.40 \div 87$

$48,058 \div 68$

$4,715 \div 23$

$\$216.77 \div 53$

$23,829 \div 47$

$\$553.88 \div 61$

$27,265 \div 58$

$\$713.78 \div 89$

Name _____

Date _____

Solve using division notation. Show all your steps.

$295 \div 43$

$\$416 \div 52$

$185 \div 96$

$150 \div 27$

$30,640 \div 48$

$32,388 \div 64$

$62,050 \div 75$

$33,615 \div 48$

$\$391.68 \div 96$

$22,563 \div 28$

Circle the best estimate.

52 weeks in a year.

Number of weeks in 8 years:

300 400 500

16 ounces in a pound.

Number of ounces in 19 pounds

200 300 400

12 inches in a foot.

Number of inches in 18 feet.

200 250 300

36 inches in one yard. How many inches in 7 yards? _____

If each year had 365 days, how many days in 3 years? _____

Solve.

^a $(3 \times 5) - 4 =$ _____

^b $3 \times (5 - 4) =$ _____

^c $(3 \times 4) - 5 =$ _____

Which sentence gives the smallest answer? _____

The harvest committee purchased 24 baskets of apples. Each basket contained 9 pounds of apples. The price for the apples was 89¢ per pound. What was the cost of the apples?



POWER TO THE EXPONENT

SOME MEDICAL ADVICE IS WRITTEN IN CODE AT THE BOTTOM OF THE PAGE. TO CRACK THE CODE:

Figure out the value of any expression below. Then find your answer in the code. Each time you see the answer in the code, write the letter of that problem above it. Keep working until you have decoded the message.

$B = 4^2 =$	$F = 8^3 =$	$A = 4^5 =$
$H = 9^2 =$	$W = 2^3 =$	$S = 2^6 =$
$G = 7^2 =$	$C = 4^4 =$	$N = 7^1 =$
$V = 10^2 =$	$I = 5^4 =$	$R = 1^8 =$
$T = 3^3 =$	$U = 7^4 =$	$E = 10^3 =$
$Y = 6^3 =$	$D = 3^5 =$	$O = 5^1 =$
$K = 5^3 =$		$L = 6^5 =$

EXPERT MEDICAL ADVICE

27-5 1024-100-5-625-243 27-81-1024-27 1-2401-7 243-5-8-7 512-1000-1000-7776-625-7-49
7776-5-5-125 16-5-27-81 8-1024-216-64 16-1000-512-5-1-1000 216-5-2401 256-1-5-64-64

Name _____

Date _____

Multiple Mania

Solve.

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

$$\begin{array}{r} 2. \quad \quad 6 \\ \times 0 \square \\ \hline \square 2 \end{array}$$

$$\begin{array}{r} 3. \quad \quad 0 \square \\ \times \quad 0 6 \\ \hline 0 \square 6 \end{array}$$

$$\begin{array}{r} 4. \quad \quad 0 9 \square \\ \times \quad \quad 0. 6 \\ \hline 0 \square 5 8 \end{array}$$

$$\begin{array}{r} 5. \quad \quad \square 3 \\ \times \quad \quad \square \\ \hline 4 9 8 \end{array}$$

$$\begin{array}{r} 6. \quad \quad 7 \square \\ \times \quad \quad 9 \\ \hline 6 6 \square \end{array}$$

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

$$\begin{array}{r} 8. \quad \quad 0 \square 4 \\ \times \quad \quad 0 3 \\ \hline 0. 1 6 \square \end{array}$$

$$\begin{array}{r} 9. \quad \quad \square 9 \\ \times \quad \quad 4 \\ \hline \square 1 6 \end{array}$$

$$\begin{array}{r} 10. \quad \quad \square \\ \times \quad 3 2 \\ \hline 1 \square 2 \end{array}$$

$$\begin{array}{r} 11. \quad \quad 0 \square \\ \times \quad 0 9 \\ \hline 0 \square 1 \end{array}$$

$$\begin{array}{r} 12. \quad \quad 0 3 3 \\ \times \quad \quad 0. \square \\ \hline 0 2 6 \square \end{array}$$

$$\begin{array}{r} 14. \quad \quad 2 \square \\ \times \quad 0 7 \\ \hline 1 5 \square \end{array}$$

$$\begin{array}{r} 15. \quad 0 \square 1 \\ \times \quad \quad \square \\ \hline 1 0 5 \end{array}$$

Name _____

Date _____

MEAS 21a

Solve.

$$\begin{array}{r}
 1. \quad 3 \square 9, 0 4 7 \\
 \quad \quad 6 5, 1 2 8 \\
 \quad \quad \quad 4, 7 \square 9 \\
 \quad \quad \quad 6 6, \square 8 2 \\
 + 4 7 1, 0 1 1 \\
 \hline
 \square 2 \square 8 3 \square
 \end{array}$$

$$\begin{array}{r}
 2. \quad 354,007 \\
 - 327,449 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 3. \quad 536,772 \\
 + 329,851 \\
 \hline
 \end{array}$$

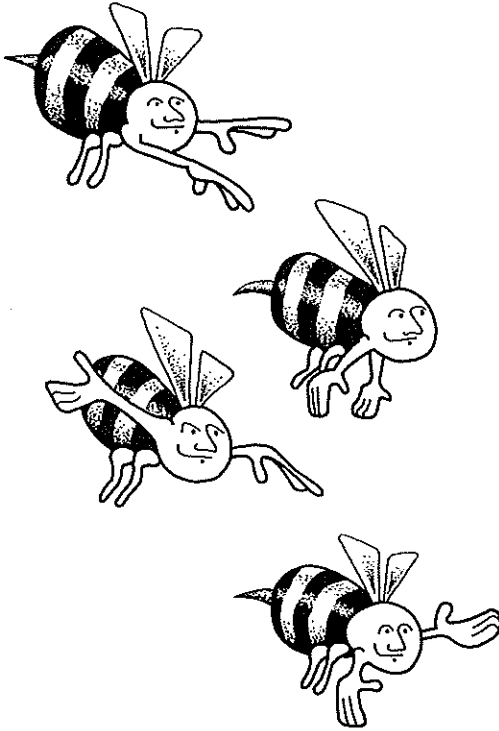
Some of the highest mountains in North America are in the United States. Among these are:

Mountain	Height
Mt. McKinley	6,194 m
Pikes Peak	4,301 m
Mt. Whitney	4,418 m
Mt. Ranier	4,392 m

- How much higher than Mt. Ranier is Mt. McKinley? _____
- Is Mt. McKinley more than 1,500 meters higher than any of the other three mountains? _____
- Which two of these mountains are closest in height? _____ and _____
- If a group of climbers were at a height of 4,500 meters on Mt. McKinley, how far would they still have to climb to reach the top? _____

Challenge: The tallest mountain in the United States is Mt. McKinley in Alaska. The lowest point is Death Valley in California and Nevada. It is 86 meters below sea level. How much higher is Mount McKinley than the floor of Death Valley? (Drawing a diagram may help you solve this one.)

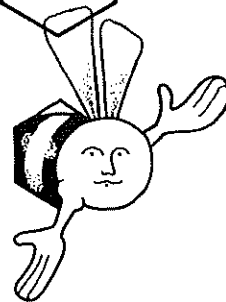
Write the numbers 1-9 in the hexagons to correctly complete the equations.
Use each number once.



$$\begin{array}{r} \text{Hexagon} - \text{Hexagon} + \text{Hexagon} = \text{Hexagon} \text{ (12)} \\ - \quad + \quad - \\ \text{Hexagon} + \text{Hexagon} - \text{Hexagon} = \text{Hexagon} \text{ (6)} \\ + \quad - \quad + \\ \text{Hexagon} - \text{Hexagon} + \text{Hexagon} = \text{Hexagon} \text{ (3)} \\ = \quad = \quad = \\ \text{Hexagon} \text{ (8)} \quad \text{Hexagon} \text{ (3)} \quad \text{Hexagon} \text{ (6)} \end{array}$$

$$\begin{array}{r} \text{Hexagon} + \text{Hexagon} - \text{Hexagon} = \text{Hexagon} \text{ (1)} \\ + \quad - \quad + \\ \text{Hexagon} - \text{Hexagon} + \text{Hexagon} = \text{Hexagon} \text{ (14)} \\ - \quad + \quad - \\ \text{Hexagon} + \text{Hexagon} - \text{Hexagon} = \text{Hexagon} \text{ (8)} \\ = \quad = \quad = \\ \text{Hexagon} \text{ (9)} \quad \text{Hexagon} \text{ (10)} \quad \text{Hexagon} \text{ (10)} \end{array}$$

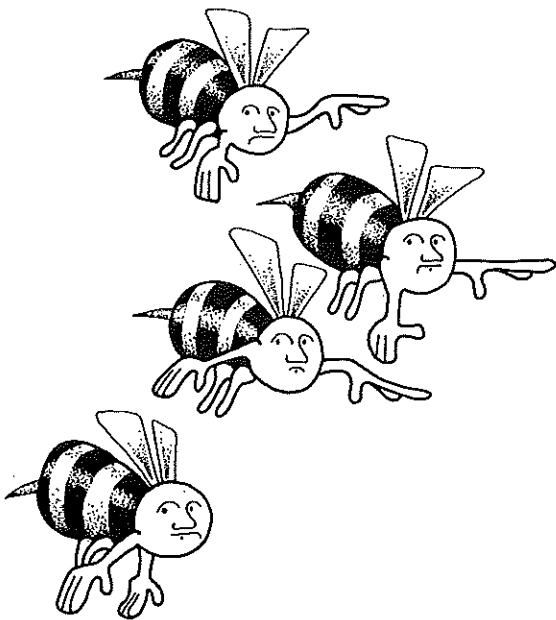
- 1
2 3
4 5 6
7 8
9



Name _____

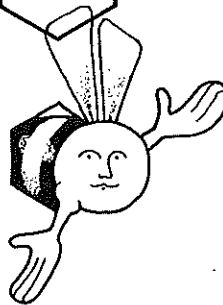
Write the numbers 1-9 in the hexagons to correctly complete the equations.
Use each number once.

One or two numbers have been put in for you as a hint.



$$\begin{array}{ccccccc}
 \text{8} & + & \square & - & \square & = & \text{2} \\
 - & & + & & - & & \\
 \square & - & \square & + & \square & = & \text{7} \\
 + & & - & & + & & \\
 \square & + & \square & - & \text{1} & = & \text{8} \\
 = & & = & & = & & \\
 \text{4} & & \text{0} & & \text{5} & &
 \end{array}$$

$$\begin{array}{ccccccc}
 \square & - & \square & + & \square & = & \text{4} \\
 + & & - & & + & & \\
 \square & + & \text{1} & - & \square & = & \text{3} \\
 - & & + & & - & & \\
 \square & - & \square & + & \square & = & \text{6} \\
 = & & = & & = & & \\
 \text{7} & & \text{8} & & \text{6} & &
 \end{array}$$



1
 2 3
 4 5 6
 7 8
 9

Practice

Add. Simplify if necessary.

$$\begin{array}{r} 1. \quad 3\frac{5}{9} \\ + 8\frac{2}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 6\frac{2}{5} \\ + 9\frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 7\frac{1}{4} \\ + 8\frac{1}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 9\frac{5}{9} \\ + 7\frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 17\frac{5}{8} \\ + 6\frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 27\frac{1}{3} \\ + 9\frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 16\frac{7}{10} \\ + 24\frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 37\frac{1}{4} \\ + 18\frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 96\frac{1}{8} \\ + 135\frac{2}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 462\frac{2}{5} \\ + 75\frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 724\frac{1}{3} \\ + 479\frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 897\frac{2}{7} \\ + 138\frac{3}{5} \\ \hline \end{array}$$

Apply

Solve these problems. Simplify if necessary.

13. Ruth practices her piano $\frac{3}{4}$ of an hour each day and Bert practices his violin $\frac{2}{3}$ of an hour each day. How long do Ruth and Bert together practice each day?

14. Leon used $\frac{2}{3}$ of a quart of blue paint, $\frac{1}{4}$ of a quart of red paint and $\frac{1}{2}$ of a quart of yellow paint on his soap box derby car. How much paint did Leon use?

In each example, there are two digits, \square and \bigcirc , that are missing. Within each example, \square always stands for the same digit and \bigcirc always stands for the same digit. Guess and test to fill in \square and \bigcirc .

1.
$$\begin{array}{r} \square \bigcirc 3 \\ + \square \bigcirc \\ \hline \square 6 7 \end{array}$$

2.
$$\begin{array}{r} 2 \bigcirc \square \\ + 1 \square 0 \\ \hline \bigcirc 9 6 \end{array}$$

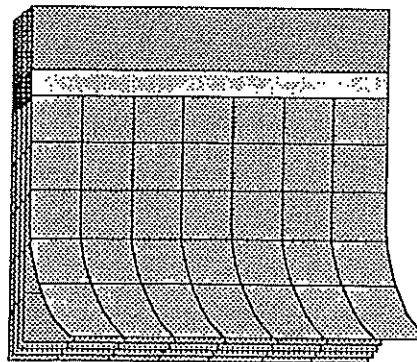
3.
$$\begin{array}{r} \square 5 \square \\ - 5 \bigcirc \bigcirc \\ \hline \bigcirc 3 5 \end{array}$$

4.
$$\begin{array}{r} \square 1 \square \\ - \square \bigcirc \\ \hline \bigcirc 4 1 \end{array}$$

Use the numbers 1 through 16 to fill in the square so that the sum of the numbers in each row, column, or diagonal is 34.

	3	2	
5			8
9		7	
4			1

If today were Tuesday, November 8, what date will it be in 100 days?



Name _____

Start at X; end at X. Without lifting your pencil, draw a line to touch each of these numbers in order: 4, 1, 11, 9, 3, 6, 2, 8, 5, 7, 10. Do not cross over any lines or numbers.

X

1

2

3

4

5

6

7

8

9

10

11

Name _____

Start at X; end at X. Without lifting your pencil, draw a line to touch each of these numbers in order: 7, 5, 6, 3, 9, 10, 8, 2, 1, 11, 4. Do not cross over any lines or numbers.

X

1

2

3

4

5

6

7

8

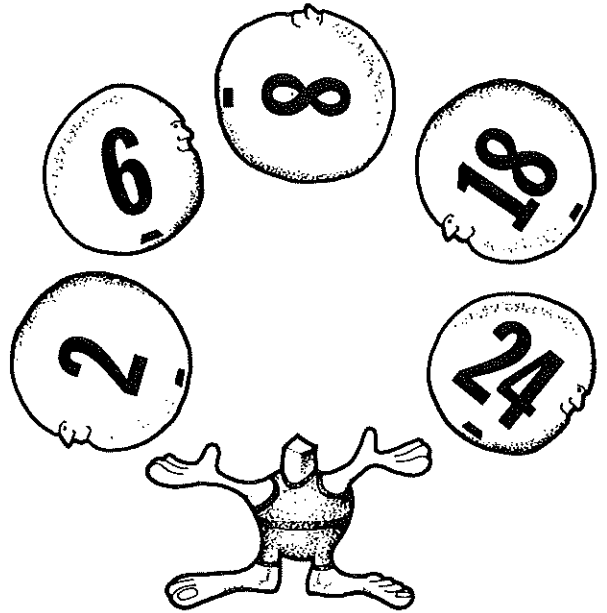
9

10

11

Name _____

Use as many of the numbers (2, 6, 8, 18, 24) as you can with any of the signs +, -, x, ÷, () to make true equations. Try to use all five faces in each equation. Cross out faces that can't be used. Each crossed out face is one point. Try for low score.

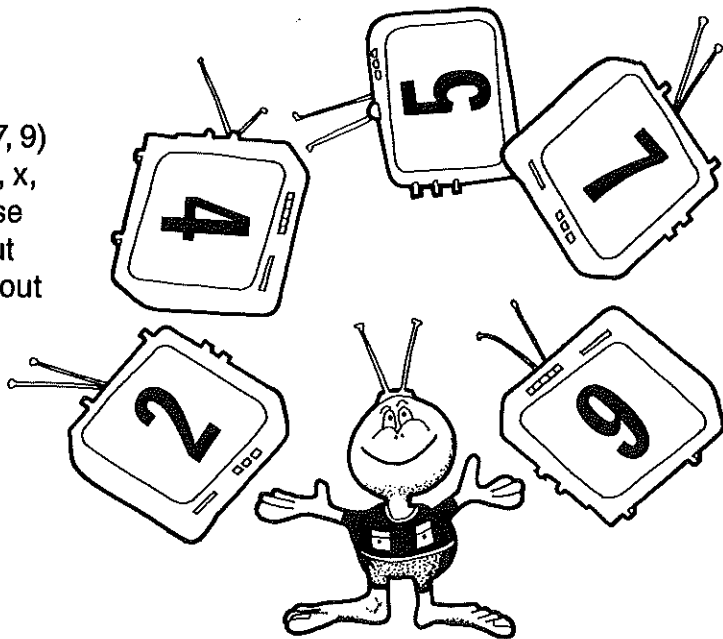


Score _____





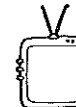



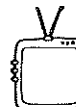



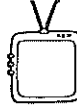
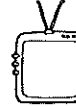
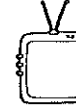
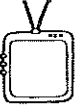


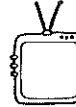
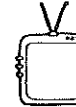

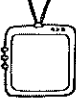







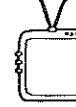




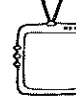




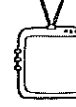




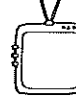


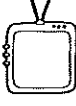

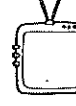




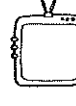


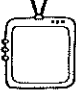
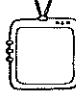
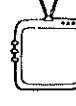
○ ○ ○ ○ ○ = 1	○ ○ ○ ○ ○ = 7
○ ○ ○ ○ ○ = 2	○ ○ ○ ○ ○ = 8
○ ○ ○ ○ ○ = 3	○ ○ ○ ○ ○ = 9
○ ○ ○ ○ ○ = 4	○ ○ ○ ○ ○ = 10
○ ○ ○ ○ ○ = 5	○ ○ ○ ○ ○ = 11
○ ○ ○ ○ ○ = 6	○ ○ ○ ○ ○ = 12

Name _____

Use as many of the numbers (2, 4, 5, 7, 9) as you can with any of the signs +, -, x, ÷, () to make true equations. Try to use all five TVs in each equation. Cross out TVs that can't be used. Each crossed out TV is one point. Try for low score.



Score _____

     = 1	     = 7
     = 2	     = 8
     = 3	     = 9
     = 4	     = 10
     = 5	     = 11
     = 6	     = 12

Circle the longest measure of length.
Put a box around the shortest.

560 millimeters

800 millimeters

76 centimeters

111 centimeters

11 decimeters

1 meter

Solve.

If I multiply my age by 3 and add 40, I get 85. How old am I? _____

Solve mentally.

1. $7 \times 9 =$ _____

2. $70 \times 9 =$ _____

3. $700 \times 9 =$ _____

4. $7,000 \times 9 =$ _____

5. $700 \times 90 =$ _____

6. $70 \times 900 =$ _____

7. $70 \times 90 =$ _____

8. $70 \times 9 =$ _____

Solve.

1. Bill started fishing at 6:05 am. He fished for 5 hours and 30 minutes. What time did he finish fishing? _____

2. John got on the bus at 5:50 pm. He rode for 4 hours and 35 minutes before he reached home. What time did he reach home? _____

Card 12

1. \$43.62 - \$15.81
2. Write these from least to greatest: 6015 6105 6051
3. $n + 17 = 83$ $n = ?$
4. Number of minutes between 2:45 p.m. and 3:20 p.m.
5. Round to the nearest thousand: 56,375
6. Count by tens: 3500, _____, _____, _____, _____
7. Charlie bought a glove for \$28.34 and a baseball for \$11.49. How much change did he get from \$50.00?
8. Warren is older than Mari. Lois is younger than Mari. Kelly is older than Lois but younger than Mari. Who is the youngest? The oldest?

Card 12

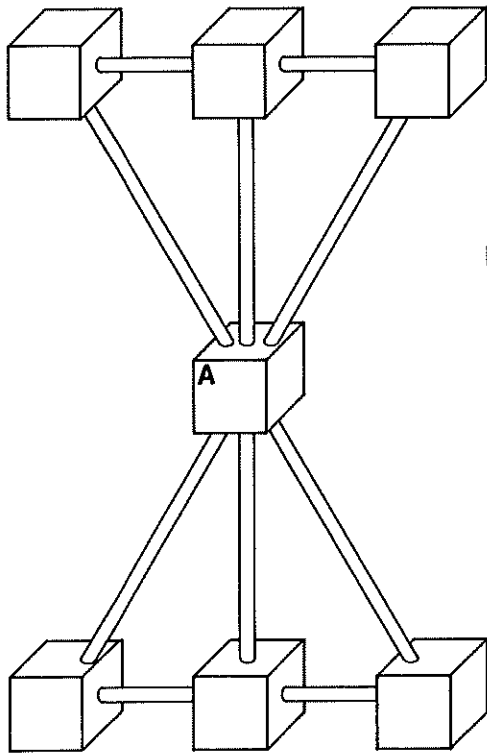
1. _____
2. Show answer below
3. _____
4. _____
5. _____
6. Show answer below.
7. _____
8. youngest =
oldest =

WORK SPACE

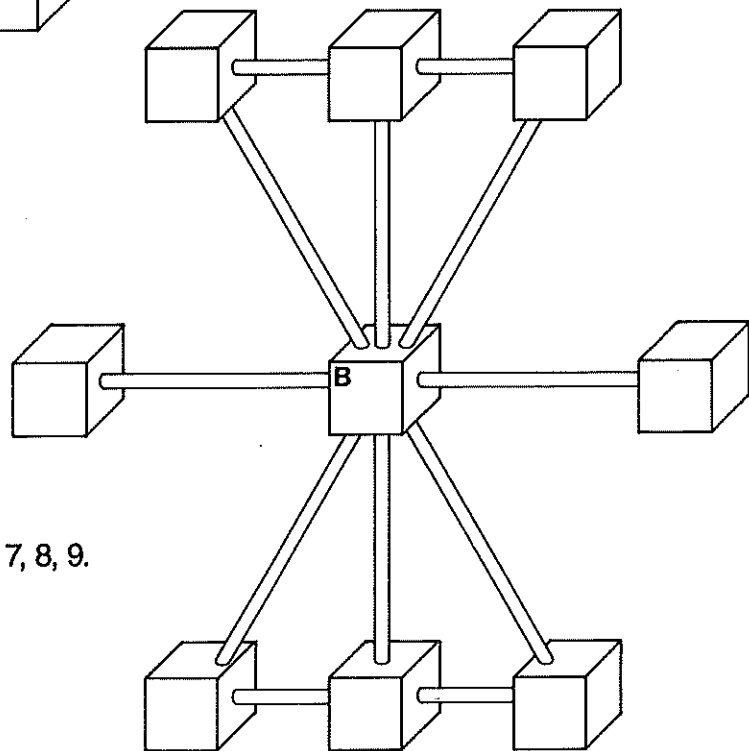
2. _____
 least greatest

6. _____

Write the numbers shown below in the boxes. Place the numbers so that each group of three numbers in a line adds up to the same number.



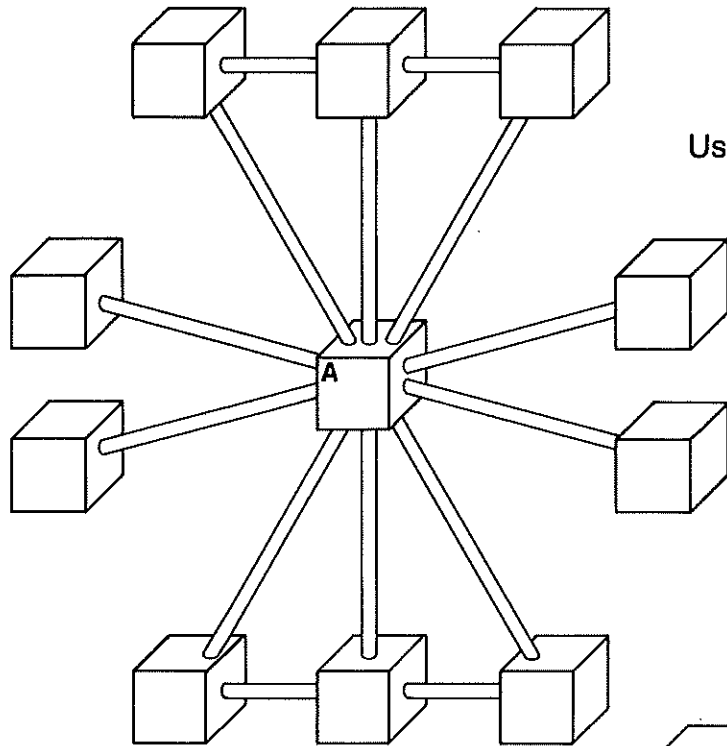
Use 1, 2, 3, 4, 5, 6, 7.



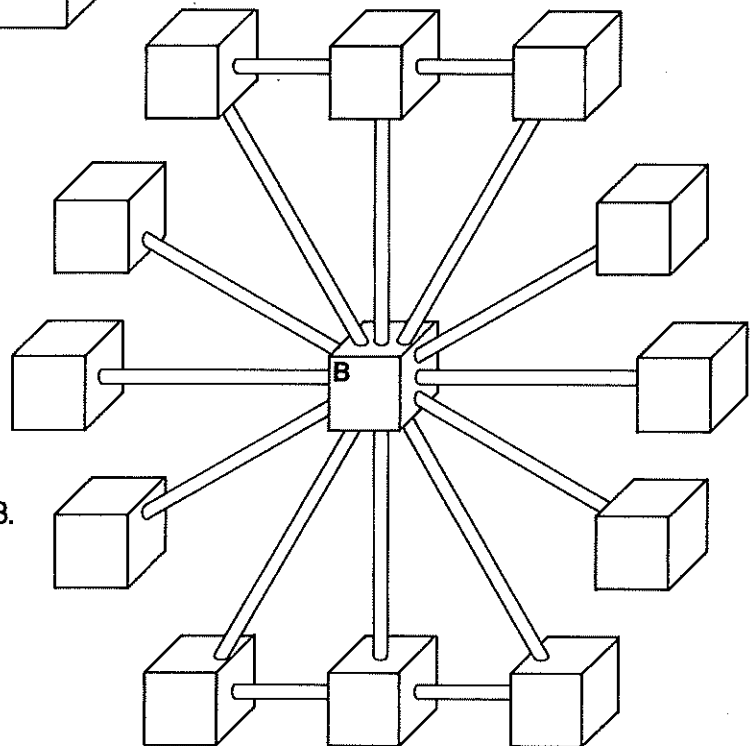
Use 1, 2, 3, 4, 5, 6, 7, 8, 9.

Name _____

Write the numbers shown below in the boxes. Place the numbers so that each group of three numbers in a line adds up to the same number.



Use 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.



Use 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.

Multiplication

- 3 digits by 2 digits
- Regrouping

Name _____

25 Answers Right _____

Multiply

	a.	b.	c.	d.	e.
1.	$\begin{array}{r} 453 \\ \times 40 \\ \hline \end{array}$	$\begin{array}{r} 190 \\ \times 92 \\ \hline \end{array}$	$\begin{array}{r} 322 \\ \times 65 \\ \hline \end{array}$	$\begin{array}{r} 436 \\ \times 13 \\ \hline \end{array}$	$\begin{array}{r} 609 \\ \times 57 \\ \hline \end{array}$

2.	$\begin{array}{r} 840 \\ \times 26 \\ \hline \end{array}$	$\begin{array}{r} 705 \\ \times 71 \\ \hline \end{array}$	$\begin{array}{r} 651 \\ \times 84 \\ \hline \end{array}$	$\begin{array}{r} 878 \\ \times 39 \\ \hline \end{array}$	$\begin{array}{r} 217 \\ \times 28 \\ \hline \end{array}$
----	---	---	---	---	---

3.	$\begin{array}{r} 652 \\ \times 37 \\ \hline \end{array}$	$\begin{array}{r} 109 \\ \times 51 \\ \hline \end{array}$	$\begin{array}{r} 143 \\ \times 42 \\ \hline \end{array}$	$\begin{array}{r} 987 \\ \times 60 \\ \hline \end{array}$	$\begin{array}{r} 320 \\ \times 76 \\ \hline \end{array}$
----	---	---	---	---	---

4.	$\begin{array}{r} 980 \\ \times 45 \\ \hline \end{array}$	$\begin{array}{r} 756 \\ \times 84 \\ \hline \end{array}$	$\begin{array}{r} 437 \\ \times 59 \\ \hline \end{array}$	$\begin{array}{r} 284 \\ \times 93 \\ \hline \end{array}$	$\begin{array}{r} 195 \\ \times 18 \\ \hline \end{array}$
----	---	---	---	---	---

5.	$\begin{array}{r} 285 \\ \times 82 \\ \hline \end{array}$	$\begin{array}{r} 201 \\ \times 73 \\ \hline \end{array}$	$\begin{array}{r} 943 \\ \times 91 \\ \hline \end{array}$	$\begin{array}{r} 766 \\ \times 66 \\ \hline \end{array}$	$\begin{array}{r} 986 \\ \times 80 \\ \hline \end{array}$
----	---	---	---	---	---

