

FACTORS, MULTIPLES, AND PRIME AND COMPOSITE NUMBERS

4th Grade

IDENTIFYING MULTIPLES
Multiply the rainbow
Directions: Find multiples of each number in the center of the rainbow. Multiply the number by each factor on the left side of the rainbow. Calculate the multiples and write on the right side of the rainbow.

7

x12 x7 x9 x10 x3

7

□ □ □ □ □

PRIME & COMPOSITE star maze
Directions: Help Allen Astronaut find his way back to planet Earth! Find a path through the stars from Allen to Earth by only passing through prime numbers. Color each prime number star as you go through it. Can Allen make it back home?

FINDING Factor pairs
Directions: Draw a line to match the flower with its factor pairs.

1 21
2 24
3 12

Factors of 24
1, 2, 3, 4, 6, 8, 12, 24

Factors of 48
1, 2, 3, 4, 6, 8, 12, 16, 24, 48

Factors of 30
1, 2, 3, 5, 6, 10, 15, 30

Factors of 48
1, 2, 3, 4, 6, 8, 12, 16, 24, 48

Factors of 12
1, 2, 3, 4, 6, 12



Printable & Google Slides

IDENTIFYING MULTIPLES

NAME: _____

DATE: _____

Directions: Bake some delicious cookies by identifying multiples. For each number given, list all the multiples of that number on the cookie sheet. Yum!

FINDING FACTORS

NAME: _____

DATE: _____

Directions: Cut out all the factors of the bottom of the page. Identify all the factors of each number and paste them into the spaces.

FINDING FACTORS

NAME: _____

DATE: _____

finding factor pairs is two numbers that you can multiply together to make a product

PRIME & COMPOSITE NUMBERS

NAME: _____

DATE: _____

Directions: Help Allen Astronaut find his way back to planet Earth! Find a path through the stars from Allen to Earth by only passing through prime numbers. Color each prime number star as you go through it. Can Allen make it back home?

FINDING FACTORS

factor pair scoops

Directions: Find one factor pair of the number on each ice cream cone. Write each factor on an ice cream scoop.

1



2



3



NAME: _____

DATE: _____

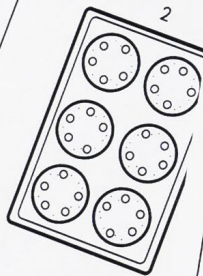
IDENTIFYING MULTIPLES

Directions: Bake some delicious cookies. List 6 multiples, one on each cookie.

1



4



NAME: _____

FINDING FACTORS

F

Directions: Cut out all the factors of each number below and paste them in the boxes.

1 24

Factors:

1	2	3
6	8	12

3 48

Factors:

1	2	3	4
8	12	16	24

5 35

Factors:

1	5	7	35
---	---	---	----

7 63

Factors:

1	3	7
9	21	63

48	1	2	35	2	12	3	3	1
3	2	4	7	16	6	1	21	
3	24		12	4	9	16		

NAME: _____

DATE: _____

FINDING FACTORS

Factor pair _____

+ shows all its

Directions: Draw a line to match the flower with its factor pairs.

1



2



3



4



5



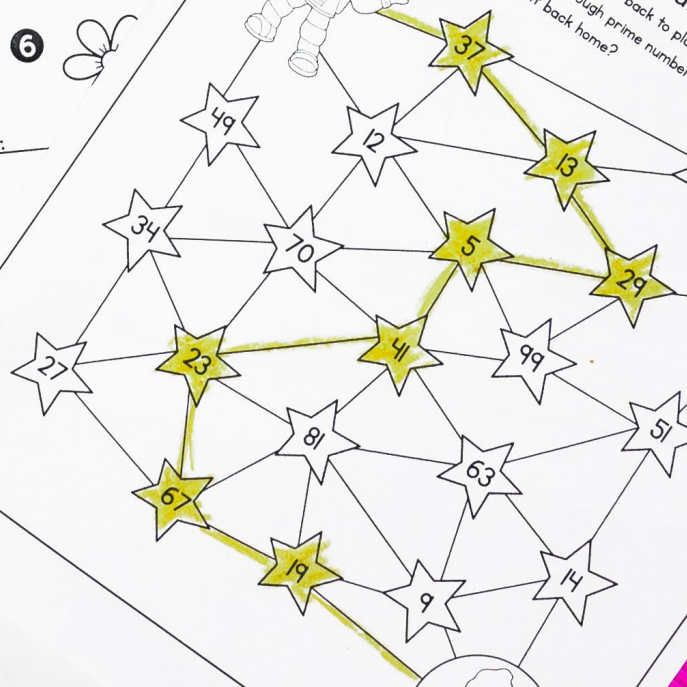
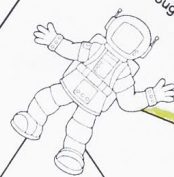
6



NAME: _____

PRIME & COMPOSITE

Directions: Help Allen Astronaut find his way back to planet Earth by only passing through prime numbers. You go through it. Can Allen make it back home?



FINDING FACTORS

For pair cut and paste
at the bottom of the page. Identify all the factors
of the factors into the spaces.

DATE: _____

2 27

Factors: 1 3 9 27

FINDING FACTORS

pair garden

Directions: Match the flower with the watering can that shows all its factors.

- A 1, 2, 3, 4, 6, 8, 12, 24
- B 1, 2, 3, 6, 9, 18
- C 1, 5, 25
- D 1, 2, 3, 4, 6, 12
- E 1, 3, 7, 21
- F 1, 5, 25

DATE: _____

1 6

2 5

3 9

4 2

5 7

FINDING FACTORS

factor pair garden

Directions: Match the flower with the watering can that shows all its factor pairs. Drag the watering can to its matching flower.

21

24

12

18

25

56

1, 2, 4, 7, 8, 14, 28, 56

1, 2, 3, 6, 9, 18

1, 2, 3, 4, 6, 12

1, 3, 7, 21

1, 2, 3, 4, 6, 8, 12, 24

1, 5, 25

finding FACTOR PAIRS

A factor pair is two numbers that you can multiply together to make a product

product ← 24

1	24
2	12
3	8
4	6

Factor pairs

NAME: _____

PRIME & COMPOSITE

Directions: Help Allen Astronaut find his way from Allen to Earth by only passing through prime numbers. Can Allen make it back home?

Allen Astronaut

Earth

IDENTIFYING MULTIPLES

Cookie sheet multiples

Directions: Bake some delicious cookies by identifying multiples. For each number given, write 6 multiples, one on each cookie on the cookie sheet. Yum!

DATE: _____

1 6

2 5

3 9

4 2

5 7

NAME: _____ DATE: _____

FINDING FACTORS

Directions: Find factor pair:

1

2

3

4

5

7

NAME: _____

DATE: _____

FINDING FACTORS

Factor pair

Directions: Cut out all the factors at the bottom of each number below and paste the factor

1 24

Factors:

1	2	3	4
6	8	12	24

3 48

Factors:

1	2	3	4	6
8	12	16	24	48

5 35

Factors:

1	5	7	35
---	---	---	----

7 63

Factors:

1	3	7
9	21	63

8

Fac

NAME: _____

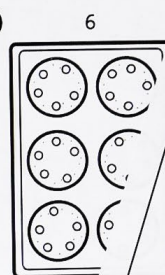
DATE: _____

IDENTIFYING MULTIPLES

Cook

Directions: Bake some delicious 6 multiples, one on each cook

1



4

NAME: _____

DATE: _____

PRIME & COMPOSITE NUMBERS

Directions: from Allen you go thr



FINDING FACTOR PAIRS

A factor pair is two numbers that you together to make a product

product	←	24
1	24	
2	12	
3	8	
4	6	

Factor pairs can be written in a T-chart...

30	
1	30
2	15
3	10
5	6

48	
1	48
2	24
3	16
4	12
6	8

...or as a list

Factors of 30: 1, 2, 3, 5, 6, 10, 15, 30

Factors of 48: 1, 2, 3, 4, 6, 8, 12, 16, 24, 48

Factors of 15: 1, 3, 5, 15

FINDING FACTORS

factor pair drag & drop

Directions: Identify all the factor pairs of each number below. Drag the factors from the bottom of the slide into the spaces.

3 48

4 6

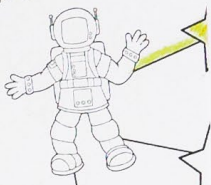
- 1, 2, 3, 4, 6, 8, 12, 16, 24, 48



NAME: _____

PRIME & C

Directions: Help Allen Astronaut from Allen to Earth by only passing through prime numbers. Can Allen make it?



49

34

27

67

NAME: _____

Directions: 6 multi

1



4



NAME: _____

FINDING Factor pair

Directions: Cut out all the factors at the bottom of each number below and paste the factors.

1 24

Factors:

1	2	3	4
6	8	12	24

3 48

Factors:

1	2	3
8	12	16

5 35

Factors:

1	5	7
---	---	---

7 63

Factors:

1	3
9	21

48	1	2	35
1	3	2	24
3	5	32	24
			27

NAME: _____

DATE: _____

FINDING FACTORS

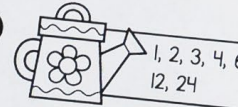
Factor pair garden

Directions: Draw a line to match the flower with the watering can that shows all factor pairs.

1



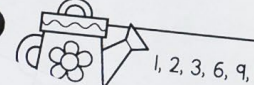
A



2



B



3



4



5



6

finding FACTOR PAIR

A factor pair is two numbers that you can multiply together to make a product

product	← 24
1	24
2	12
3	8
4	6
	factors

Factor pairs can be written in a T-chart...

1	30
2	15
3	10
5	6

1	48
2	24
3	16
4	12
6	8

1	15
3	5

Factors of 11:

1, 11

Factors of 30:

1, 2, 3, 5, 6, 10, 15, 30

...or as a list

Factors of 48:

1, 2, 3, 4, 6, 8, 12, 16, 24, 48

Factors of 15:

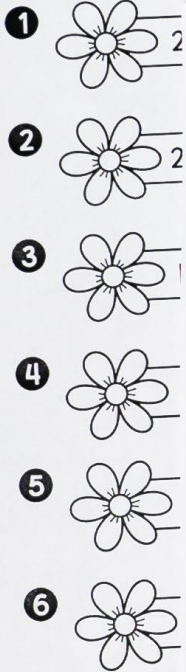
1, 3, 5, 15

© Dale Baker

FINDING FACTORS

Factor pair garden

Directions: Draw a line to match the flower with the watering can that shows all its factor pairs.



FINDING FACTORS

Factor pair cut and paste

Directions: Cut out all the factors of each number below and paste

1 24

Factors:

1	2	3
6	8	12

3 48

Factors:

1	2	3
8	12	16

5 35

Factors:

1	5	7
9	21	63

7 63

Factors:

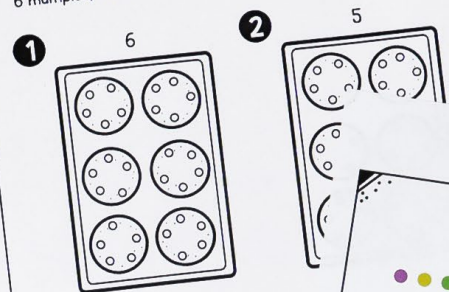
1	3	7
9	21	63

48	1	2	35	2	12	3	3	4	1	4	8	1	3	2
1	3	2	24	7	16	6	1	21	63	8	1	6	9	3
3	5	32	24	27	12	4	9	16	7	1	8	6	1	9

IDENTIFYING MULTIPLES

Cookie sheet multiples

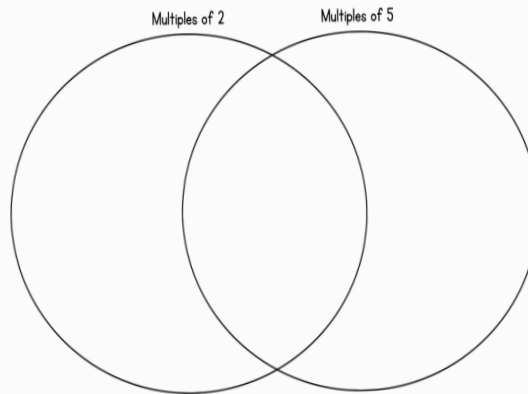
Directions: Bake some delicious cookies by identifying multiples. For each number, write 6 multiples, one on each cookie on the cookie sheet. Yum!



IDENTIFYING MULTIPLES

Venn diagram

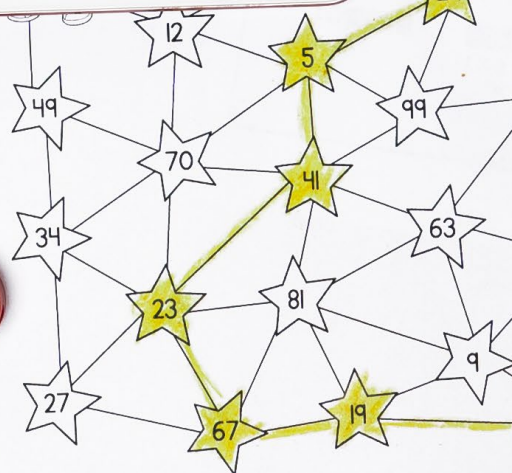
Directions: Drag, sort and place the numbers into the correct area of the Venn diagram.



92	80	56
45	38	8
10	12	85
15	35	65
40	20	90
78	30	75
25	100	42

ITE NUM

net Earth! Find a path from the start to the finish. Color each prime number.



FACTORS, MULTIPLES, AND PRIME AND COMPOSITE NUMBERS

4th grade

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finding FACTOR PAIRS

A **factor pair** is two numbers that you can multiply together to make a product

product ← 24

1	24
2	12
3	8
4	6

→ factors

Factor pairs can be written in a T-chart...

11	30	48	15
1	1	1	1
11	30	48	15
2	15	2	3
3	10	3	5
5	6	4	
		6	

...or as a list

Factors of 11:

1, 11

Factors of 30:

1, 2, 3, 5, 6, 10,
15, 30

Factors of 48:

1, 2, 3, 4, 6, 8,
12, 16, 24, 48

Factors of 15:

1, 3, 5, 15

identifying

MULTIPLES

A **multiple** is the product of a given number and any other number.

You can find multiples by skip counting.

Multiples of 3

3, 6, 9, 12, 15, 18, 21, 24, 27, 30...

(3×1) (3×2) (3×3) (3×4) (3×5) (3×6) (3×7) (3×8) (3×9) (3×10)

Multiples of 5

5, 10, 15, 20, 25, 30, 35, 40, 45, 50...

(5×1) (5×2) (5×3) (5×4) (5×5) (5×6) (5×7) (5×8) (5×9) (5×10)

Multiples of 8

8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96...

Multiples of 9

9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99, 108...

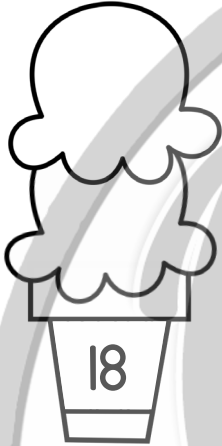
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FINDING FACTORS

factor pair scoops

Directions: Find one factor pair of the number on each ice cream cone. Write each factor on an ice cream scoop.

1



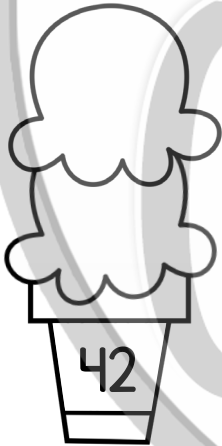
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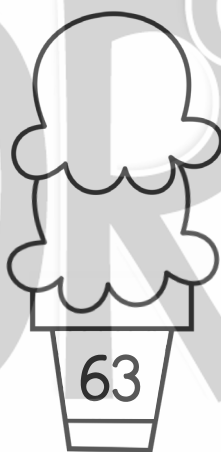
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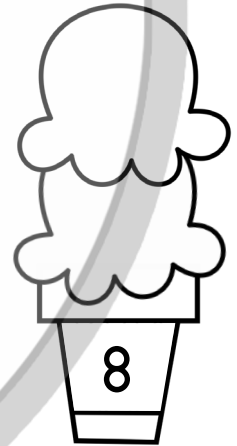
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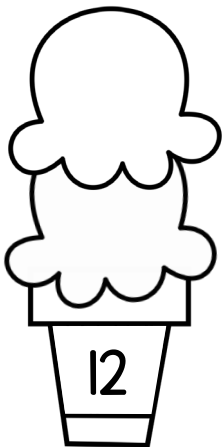
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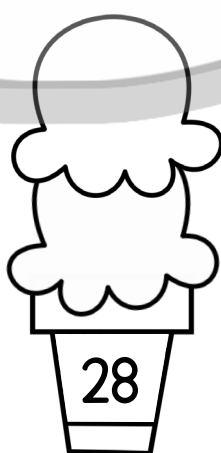
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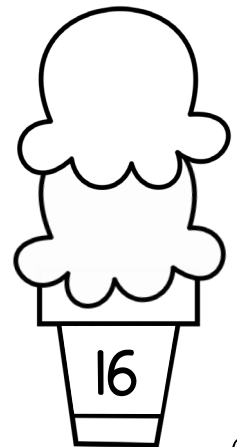
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8



9



NAME: _____

DATE: _____

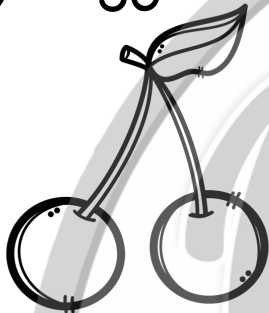
FINDING FACTORS

factor pair cherries

Directions: Find a factor pair of the number on each cherry stem. Write each factor on a cherry.

1

36



2

15



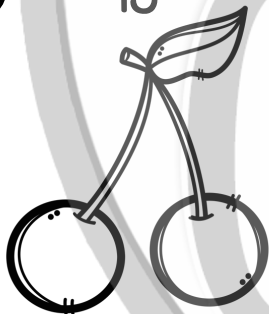
3

32



4

45



5

64



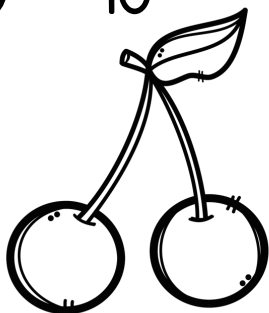
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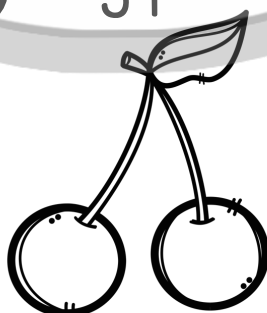
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10



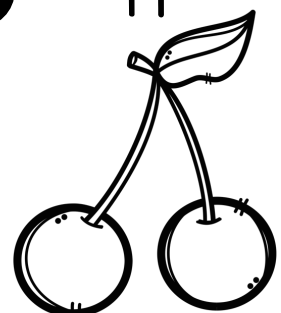
8

54



9

49



NAME: _____ DATE: _____

FINDING FACTORS

factor pair t-charts

Directions: Find all factor pairs of each number below. List the factor pairs in the t-chart.

1

36

2

64

3

72

4

40

5

9

6

45

NAME: _____

DATE: _____

FINDING FACTORS

factor bullseye

Directions: Cut out the cards on the next page, shuffle, and place face down in a pile. Flip over the top card and in space #1 below, list all the factor pairs of the number on the card. For each of the bullseye numbers that is a factor, earn one point. Repeat with the next cards, then add all your points to find your final score.

1

Number: _____

Factor pairs:



2, 6

Points: **2**

Number: _____

Factor pairs:



3, 8

Points: **3**

Number: _____

Factor pairs:



4, 5

Points: **4**

Number: _____

Factor pairs:



2, 9

Points: **5**

Number: _____

Factor pairs:



4, 7

Points: **6**

Number: _____

Factor pairs:



6, 9

Points: **7**

Number: _____

Factor pairs:



8, 10

Points: **8**

Number: _____

Factor pairs:



5, 6

Points: **9**

Number: _____

Factor pairs:



4, 8

Points: **10**

Number: _____

Factor pairs:



2, 5

Points: **11**

Number: _____

Factor pairs:



6, 10

Points: **12**

Number: _____

Factor pairs:



4, 6

Points:

FINDING FACTORS

factor bullseye

© Julie Buckner



12

63

20

28

42

40

60

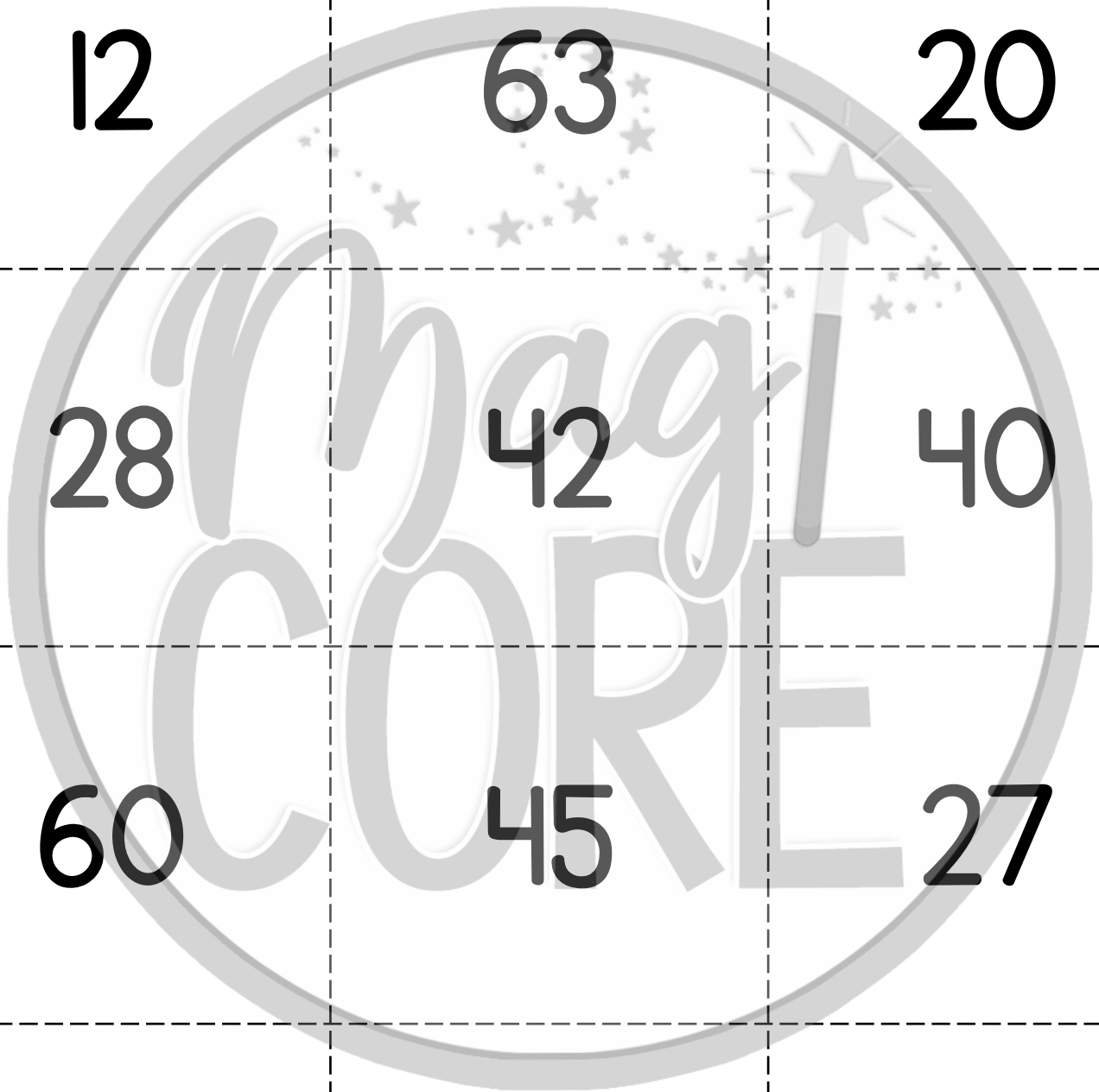
45

27

36

18

10



NAME: _____ DATE: _____

FINDING FACTORS

factor pair battle

CARD #1

Number: _____

Factor pairs: _____

Points earned: _____

CARD #2

Number: _____

Factor pairs: _____

Points earned: _____

CARD #3

Number: _____

Factor pairs: _____

Points earned: _____

CARD #4

Number: _____

Factor pairs: _____

Points earned: _____

CARD #5

Number: _____

Factor pairs: _____

Points earned: _____

CARD #6

Number: _____

Factor pairs: _____

Points earned: _____

CARD #7

Number: _____

Factor pairs: _____

Points earned: _____

CARD #8

Number: _____

Factor pairs: _____

Points earned: _____

Total points: _____

NAME: _____

DATE: _____

IDENTIFYING MULTIPLES

multiples on the hundreds chart

Directions: Choose a number. On the hundreds chart below, shade all multiples of that number.

MULTIPLES OF:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	92	94	95	96	97	98	99	100

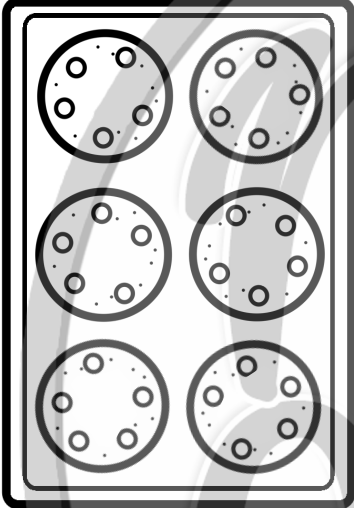
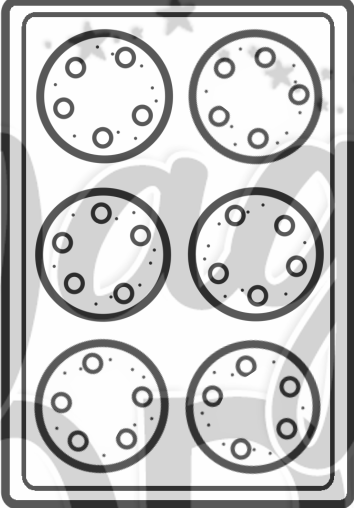
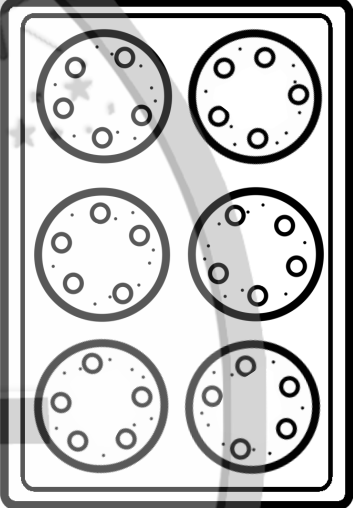
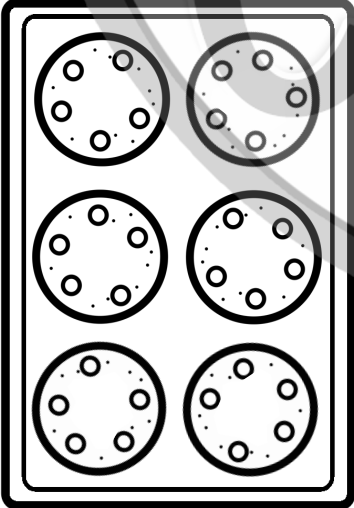
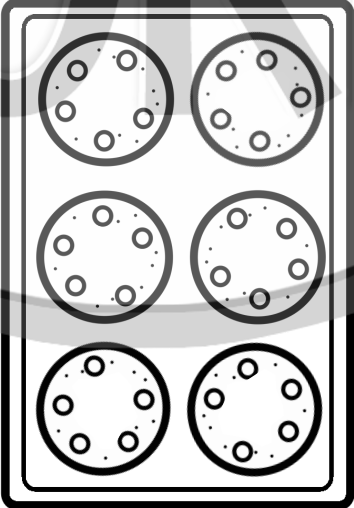
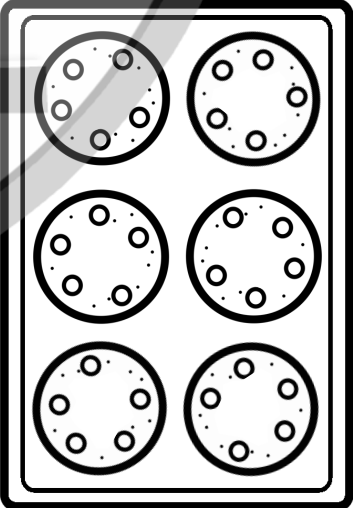
NAME: _____

DATE: _____

IDENTIFYING MULTIPLES

cookie sheet multiples

Directions: Bake some delicious cookies by identifying multiples. For each number given, list 6 multiples, one on each cookie on the cookie sheet. Yum!

1	6	2	5	3	9
					
4	2	5	7	6	4
					

NAME: _____ DATE: _____

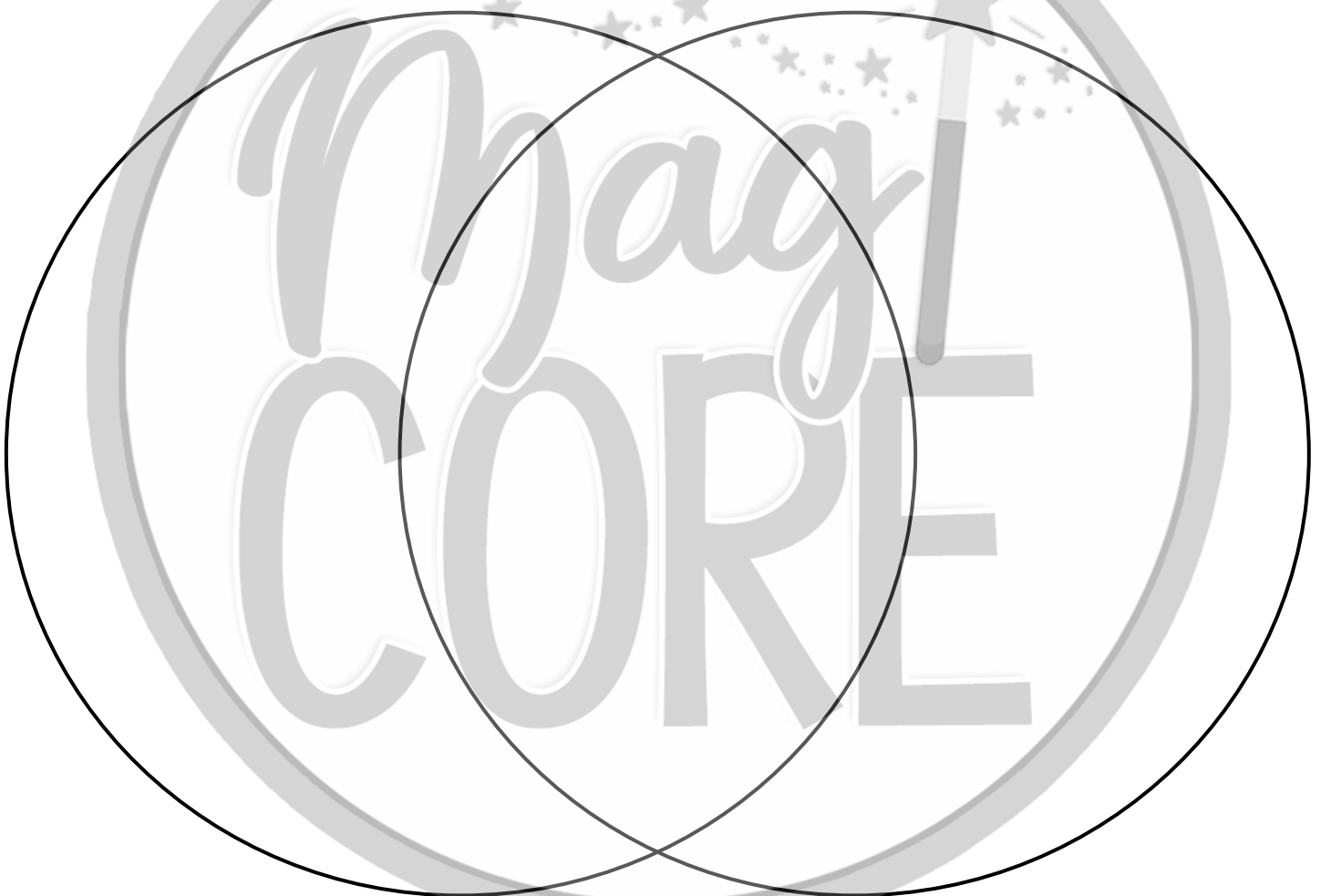
IDENTIFYING MULTIPLES

Venn diagram

Directions: Cut out the numbers at the bottom of the page. Sort and place the numbers into the correct area of the Venn diagram.

Multiples of 3

Multiples of 4



32	16	6	12	28	24	60
66	48	27	30	8	40	20
21	33	9	72	36	15	44

NAME: _____

DATE: _____

IDENTIFYING MULTIPLES

sort the multiples

Directions: Cut out the numbers at the bottom of the page. Shuffle and place face down in a pile. Start a timer. Flip over the first card and place in the correct column. Repeat with the remaining cards. How long does it take you to sort all the cards? Can you beat your time if you play again, or can a friend sort faster?

Multiples
of 3

Multiples
of 7

Multiples
of 8



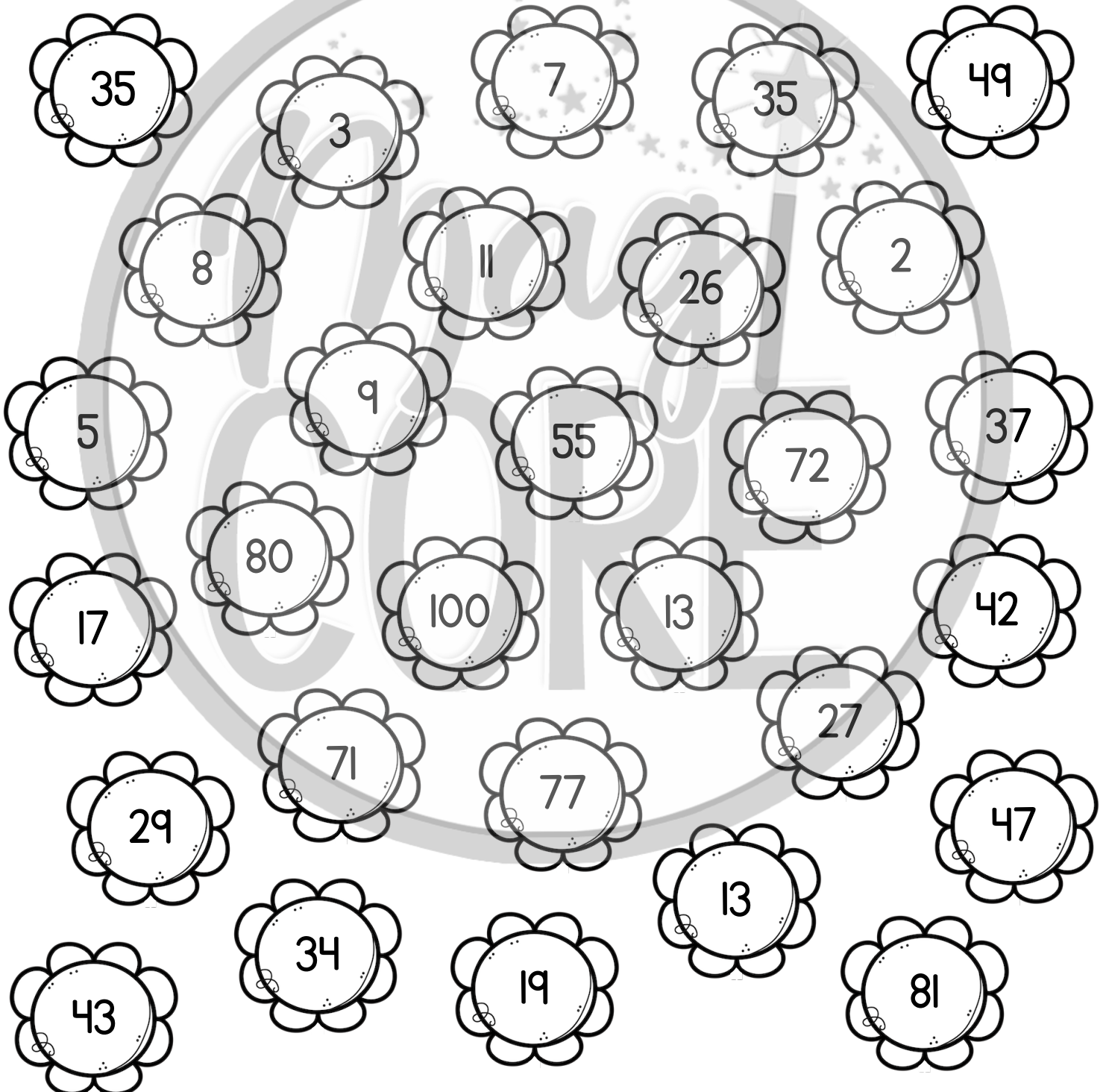
36	16	27	49	28	18	9	77
33	7	99	6	32	64	93	80
70	12	14	40	35	15	8	30

NAME: _____ DATE: _____

PRIME & COMPOSITE NUMBERS

prime number garden

Directions: Look at the numbers in the flowers below. Color the flowers with prime numbers red. Color the flowers with composite numbers yellow.



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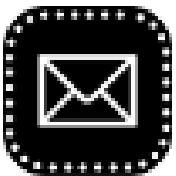
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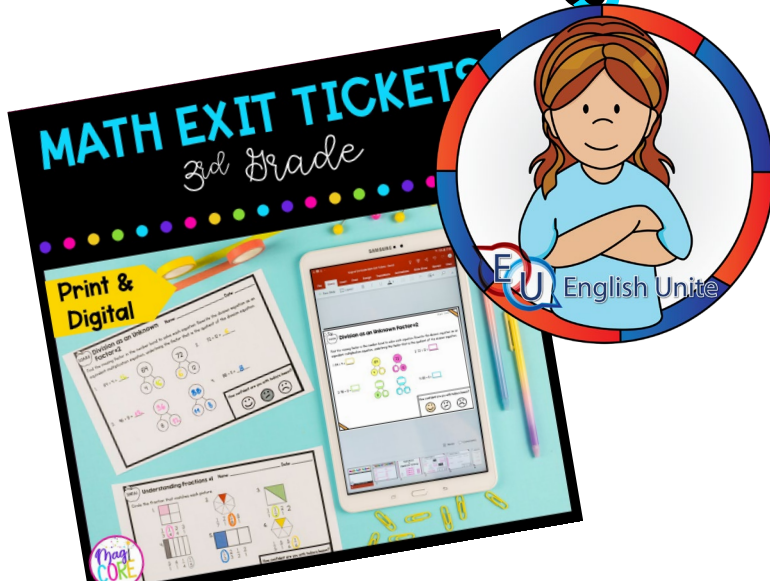


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