

math & movement

Family Fun Night

Program Guide & Workbook

Welcome to the Math & Movement Family Fun Night!

- 1.** Stations can be done in any order.
- 2.** Write down your answers in this workbook, using the mats to help you solve the questions!
- 3.** Have fun with your friends and family!

**Let's get
started!**



Add/Subtract Hop

To add with this mat, stand on the first number of the problem. Then, jump forward the number of spaces that equal the second number. What number did you land on? That's your answer!

I	1	2	3	4	5	6	7	8	9	10
II	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	93	94	95	96	97	98	99	100	

To subtract, start on the first number, and then walk towards zero the number of spaces that equal the second number. Try it out with the problems below!

Solve these problems using the mat...

$6 + 12 = \underline{\hspace{2cm}}$

$3 - 2 = \underline{\hspace{2cm}}$

$88 + 4 = \underline{\hspace{2cm}}$

$7 + 12 = \underline{\hspace{2cm}}$

$12 + 5 = \underline{\hspace{2cm}}$

$25 - 10 = \underline{\hspace{2cm}}$

$8 - 2 = \underline{\hspace{2cm}}$

$81 + 5 = \underline{\hspace{2cm}}$

$44 - 3 = \underline{\hspace{2cm}}$

$17 + 5 = \underline{\hspace{2cm}}$

$55 + 7 = \underline{\hspace{2cm}}$

$40 - 3 = \underline{\hspace{2cm}}$

$17 - 3 = \underline{\hspace{2cm}}$

$99 - 21 = \underline{\hspace{2cm}}$

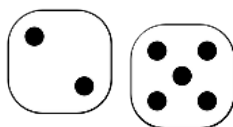
For younger students...

Roll two dice...

Find the number they make when placed together...25!

Find 25 on the mat.

What is one more than 25? What is one less?



Skip Counting by 2s

Jump on the Mat!

1. Stand on the START HERE block.
 2. Jump on the 1 and whisper, "one."
 3. Clap and jump on the "2" as you shout, "TWO!"
 4. Jump on the 3 and whisper, "three."
 5. Clap and jump on the "4" as you shout, "FOUR!"
 6. Keep going all the way to the end of the mat.
- Do it again at least once, but twice is better!

How to Solve Problems Using the Mat

Example: 2×2

Stand on the 'Start Here' block. Then, jump forward on the BLUE multiple blocks TWO times ($\times 2$). What are you standing on? FOUR! That's your answer!

Now solve these problems:

$2 + 2 = \underline{\quad\quad\quad}$ $2 \times 2 = \underline{\quad\quad\quad}$

$2 + 2 + 2 = \underline{\quad\quad\quad}$ $2 \times 3 = \underline{\quad\quad\quad}$

$2 + 2 + 2 + 2 = \underline{\quad\quad\quad}$ $2 \times 4 = \underline{\quad\quad\quad}$

$2 + 2 + 2 + 2 + 2 = \underline{\quad\quad\quad}$ $2 \times 5 = \underline{\quad\quad\quad}$

$7 + 5 = \underline{\quad\quad\quad}$ $14 - 4 = \underline{\quad\quad\quad}$

$6 + 8 = \underline{\quad\quad\quad}$ $16 - 12 = \underline{\quad\quad\quad}$

$10 + 10 = \underline{\quad\quad\quad}$ $6 - 5 = \underline{\quad\quad\quad}$



Skip Counting by 3s

Jump on the Mat!

1. Stand on the START HERE block.
2. Jump on the 1 and whisper, "one."
3. Jump on the 2 and whisper, "two."
4. Clap and jump on the "3" as you shout, "THREE!"
5. Jump on the 4 and whisper, "four."
6. Jump on the 5 and whisper, "five."
7. Clap and jump on the "6" as you shout, "SIX!"
8. Keep going all the way to the end of the mat.

Jumping Multiples

The numbers on the red spaces are the multiples of 3. Jump down the mat on the red spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the red spaces by the number you are multiplying 3 by. What number did you jump to? That is your answer!

$9 \times 3 = \underline{\quad\quad\quad}$

$7 \times 3 = \underline{\quad\quad\quad}$

$3 \times 3 = \underline{\quad\quad\quad}$

$10 \times 3 = \underline{\quad\quad\quad}$

$5 \times 3 = \underline{\quad\quad\quad}$

$6 \times 3 = \underline{\quad\quad\quad}$

Division

Stand on the first number of the problem and jump back to zero on the red spaces. How many hops did it take to get back to zero? That is your answer!

$9 \div 3 = \underline{\quad\quad\quad}$

$21 \div 3 = \underline{\quad\quad\quad}$

$30 \div 3 = \underline{\quad\quad\quad}$

$15 \div 3 = \underline{\quad\quad\quad}$

$12 \div 3 = \underline{\quad\quad\quad}$

$6 \div 3 = \underline{\quad\quad\quad}$



Skip Counting by 4s

Jump on the Mat!

1. Stand on the START HERE block.
2. Jump on the 1 and whisper, "one."
3. Jump on the 2 and whisper, "two."
4. Jump on the 3 and whisper, "three."
5. Clap and jump on the "4" as you shout, "FOUR!"
6. Keep going with the whisper/loud pattern all the way to the end of the mat.

Jumping Multiples

The numbers on the bright pink spaces are the multiples of 4. Jump down the mat on the bright pink spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the bright pink spaces by the number you are multiplying 4 by. What number did you jump to? That is your answer!

$9 \times 4 = \underline{\hspace{2cm}}$

$7 \times 4 = \underline{\hspace{2cm}}$

$3 \times 4 = \underline{\hspace{2cm}}$

$10 \times 4 = \underline{\hspace{2cm}}$

$5 \times 4 = \underline{\hspace{2cm}}$

$6 \times 4 = \underline{\hspace{2cm}}$

Division

Stand on the first number of the problem and jump back to zero on the bright pink spaces. How many hops did it take to get back to zero? That is your answer!

$16 \div 4 = \underline{\hspace{2cm}}$

$24 \div 4 = \underline{\hspace{2cm}}$

$40 \div 4 = \underline{\hspace{2cm}}$

$20 \div 4 = \underline{\hspace{2cm}}$

$12 \div 4 = \underline{\hspace{2cm}}$

$4 \div 4 = \underline{\hspace{2cm}}$



Skip Counting by 6s

Jump on the Mat!

1. Stand on the START HERE block.
2. Jump on the 1 and whisper, "one."
3. Jump on the 2 and whisper, "two."
4. Jump on the 3 and whisper, "three."
5. Jump on the 4 and whisper, "four."
6. Jump on the 5 and whisper, "five."
7. Clap and jump on the "6" as you shout, "SIX!"
8. Keep going with the whisper/loud pattern all the way to the end of the mat.

Jumping Multiples

The numbers on the yellow spaces are the multiples of 6. Jump down the mat on the yellow spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the yellow spaces by the number you are multiplying 6 by. What number did you jump to? That is your answer!

$9 \times 6 = \underline{\hspace{2cm}}$

$7 \times 6 = \underline{\hspace{2cm}}$

$3 \times 6 = \underline{\hspace{2cm}}$

$10 \times 6 = \underline{\hspace{2cm}}$

$5 \times 6 = \underline{\hspace{2cm}}$

$6 \times 6 = \underline{\hspace{2cm}}$

Division

Stand on the first number of the problem and jump back to zero on the yellow spaces. How many hops did it take to get back to zero? That is your answer!

$18 \div 6 = \underline{\hspace{2cm}}$

$30 \div 6 = \underline{\hspace{2cm}}$

$42 \div 6 = \underline{\hspace{2cm}}$

$54 \div 6 = \underline{\hspace{2cm}}$

$60 \div 6 = \underline{\hspace{2cm}}$

$6 \div 6 = \underline{\hspace{2cm}}$



Skip Counting by 7s

Jump on the Mat!

1. Stand on the START HERE block.
2. Jump on the 1 and whisper, "one."
3. Jump on the 2 and whisper, "two."
4. Jump on the 3 and whisper, "three."
5. Jump on the 4 and whisper, "four."
6. Jump on the 5 and whisper, "five."
7. Jump on the 6 and whisper, "six."
8. Clap and jump on the "7" as you shout, "SEVEN!"
9. Keep going with the whisper/loud pattern all the way to the end of the mat.

Jumping Multiples

The numbers on the green spaces are the multiples of 7. Jump down the mat on the yellow spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the green spaces by the number you are multiplying 7 by. What number did you jump to? That is your answer!

$9 \times 7 = \underline{\hspace{2cm}}$

$7 \times 7 = \underline{\hspace{2cm}}$

$3 \times 7 = \underline{\hspace{2cm}}$

$10 \times 7 = \underline{\hspace{2cm}}$

$5 \times 7 = \underline{\hspace{2cm}}$

$6 \times 7 = \underline{\hspace{2cm}}$

Division

Stand on the first number of the problem and jump back to zero on the green spaces. How many hops did it take to get back to zero? That is your answer!

$14 \div 7 = \underline{\hspace{2cm}}$

$42 \div 7 = \underline{\hspace{2cm}}$

$70 \div 7 = \underline{\hspace{2cm}}$

$56 \div 7 = \underline{\hspace{2cm}}$

$63 \div 7 = \underline{\hspace{2cm}}$

$35 \div 7 = \underline{\hspace{2cm}}$



Skip Counting by 8s

Jump on the Mat!

1. Stand on the START HERE block.
2. Jump on the 1 and whisper, "one."
3. Jump on the 2 and whisper, "two."
4. Jump on the 3 and whisper, "three."
5. Jump on the 4 and whisper, "four."
6. Jump on the 5 and whisper, "five."
7. Jump on the 6 and whisper, "six."
8. Jump on the 7 and whisper, "seven."
9. Clap and jump on the "8" as you shout, "EIGHT!"
10. Keep going with the whisper/loud pattern all the way to the end of the mat.



Jumping Multiples

The numbers on the light pink spaces are the multiples of 8. Jump down the mat on the light pink spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the light pink spaces by the number you are multiplying 8 by. What number did you jump to? That is your answer!

$9 \times 8 = \underline{\hspace{2cm}}$

$7 \times 8 = \underline{\hspace{2cm}}$

$3 \times 8 = \underline{\hspace{2cm}}$

$10 \times 8 = \underline{\hspace{2cm}}$

$5 \times 8 = \underline{\hspace{2cm}}$

$6 \times 8 = \underline{\hspace{2cm}}$

Division

Stand on the first number of the problem and jump back to zero on the light pink spaces. How many hops did it take to get back to zero? That is your answer!

$32 \div 8 = \underline{\hspace{2cm}}$

$72 \div 8 = \underline{\hspace{2cm}}$

$40 \div 8 = \underline{\hspace{2cm}}$

$8 \div 8 = \underline{\hspace{2cm}}$

$24 \div 8 = \underline{\hspace{2cm}}$

$80 \div 8 = \underline{\hspace{2cm}}$

Skip Counting by 9s

Jump on the Mat!

1. Stand on the START HERE block.
2. Jump on the 1 and whisper, "one."
3. Jump on the 2 and whisper, "two."
4. Jump on the 3 and whisper, "three."
5. Jump on the 4 and whisper, "four."
6. Jump on the 5 and whisper, "five."
7. Jump on the 6 and whisper, "six."
8. Jump on the 7 and whisper, "seven."
9. Jump on the 8 and whisper, "eight."
8. Clap and jump on the "9" as you shout, "NINE!"
11. Keep going with the whisper/loud pattern all the way to the end of the mat.

Jumping Multiples

The numbers on the gold spaces are the multiples of 9. Jump down the mat on the gold spaces and shout the number on each one!

Multiplication

Stand on zero. Jump forward on the gold spaces by the number you are multiplying 9 by. What number did you jump to? That is your answer!

$9 \times 9 = \underline{\hspace{2cm}}$

$7 \times 9 = \underline{\hspace{2cm}}$

$3 \times 9 = \underline{\hspace{2cm}}$

$10 \times 9 = \underline{\hspace{2cm}}$

$5 \times 9 = \underline{\hspace{2cm}}$

$6 \times 9 = \underline{\hspace{2cm}}$

Division

Stand on the first number of the problem and jump back to zero on the gold spaces. How many hops did it take to get back to zero? That is your answer!

$9 \div 9 = \underline{\hspace{2cm}}$

$27 \div 9 = \underline{\hspace{2cm}}$

$63 \div 9 = \underline{\hspace{2cm}}$

$90 \div 9 = \underline{\hspace{2cm}}$

$45 \div 9 = \underline{\hspace{2cm}}$

$81 \div 9 = \underline{\hspace{2cm}}$



Dollar Hop



Jump on the Mat!

1. Stand on the START HERE block.
2. Count the pennies on the mat.
3. Jump onto the pennies and say, "___ pennies is the same as 1 dollar."
4. Count the nickels on the mat.
5. Jump onto the nickels and say, "___ nickels is the same as 1 dollar."
6. Count the quarters on the mat.
7. Jump onto the quarters and say, "___ quarters is the same as 1 dollar."
8. Count the half-dollars on the mat.
9. Jump onto the half-dollars and say, "___ half-dollars is the same as 1 dollar."

Do it again at least once, but twice is better!

Solve these problems using the mat...

Jump on each coin and count by its value, starting with the largest. Example: $2 \text{ dimes} + 10 \text{ pennies} = ?$

Jump on the dime box once, say, "10." Twice, "20."

Jump on the pennies and add 1 with each jump.

1 jump, "21." 2 jumps, "22"....10 jumps, "30."

Now you try!

$$3 \text{ quarters} + 2 \text{ dimes} = \underline{\hspace{2cm}}$$

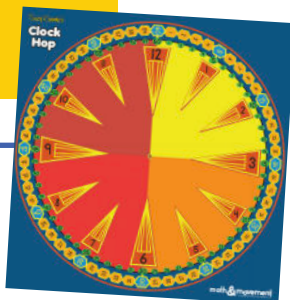
$$6 \text{ nickels} + 4 \text{ pennies} = \underline{\hspace{2cm}}$$

$$3 \text{ half-dollars} + 10 \text{ pennies} = \underline{\hspace{2cm}}$$

$$1 \text{ dollar} + 3 \text{ nickels} = \underline{\hspace{2cm}}$$

$$1 \text{ half-dollar} + 50 \text{ pennies} = \underline{\hspace{2cm}}$$

Clock Hop



What Time is it?

Make 2:00 on the mat. Use a ruler as the hour hand and a yardstick as the minute hand. Or, lie down on the mat and use your arms as the hour hand and your legs as the minute hand!

Make these times on the mat...

3:15

7:23

4:20

10:45

9:55

1:15

8:24

12:30

11:36

2:57

Elapsed Time

Stand on 3:10. What time will it be in 15 minutes?

Stand on 7:30. What time will it be in 45 minutes?

Equivalent Fraction



Jump on the Mat!

1. Stand on the large purple 1. Notice how the top line on the 1 box matches up to the top line of the $\frac{2}{2}$ box.
2. Jump on $\frac{2}{2}$. Say, "One is the same as two halves."
3. Jump on $\frac{3}{3}$. Say, "One is the same as three thirds."
4. Jump on $\frac{4}{4}$. Say, "One is the same as four fourths."
5. Continue to jump to say all the fractions that are the same as 1.
6. Stand on $\frac{1}{2}$. Jump to the right to $\frac{2}{4}$. Say, " $\frac{1}{2}$ is equivalent to $\frac{2}{4}$."
7. Continue to jump to the right to find all the fractions equivalent to $\frac{1}{2}$.
8. Jump to find all the fractions that are equivalent to the following: $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{3}$, $\frac{3}{4}$, $\frac{2}{5}$, $\frac{4}{5}$.

Fractions to One Whole

1. Start at the bottom of the mat on the $\frac{1}{2}$.
2. Walk up the mat to determine how many halves make a whole.
3. Say, "one half, two halves make a whole."
4. Stand on the $\frac{1}{3}$ and walk towards the top of the mat.
5. Say, "one third, two thirds, three thirds make a whole."
6. Continue across the mat.

Equivalent Fraction Slide

1. With a partner, stand on two fractions you think are equal.
2. Ask, " Whose fraction is greater?" "Are they equivalent or equal?"
3. Slide your feet across the top line of the box you are standing on. If your feet touch, you found an equivalent fraction!
4. If your feet matched up, high five and see if you can find another pair of equivalent fractions.
5. If your feet didn't meet one of your fractions was bigger than the other. Can one of you find a fraction that is equal to your partners?

Solve these problems using the mat...

$\frac{2}{4}$ is equivalent to _____

$\frac{1}{3}$ is equivalent to _____

$\frac{2}{5}$ is equivalent to _____

$\frac{4}{6}$ is equivalent to _____

$\frac{8}{10}$ is equivalent to _____

$\frac{1}{4}$ is equivalent to _____

$\frac{3}{9}$ is equivalent to _____

$\frac{3}{3}$ is equivalent to _____

$\frac{1}{6}$ is equivalent to _____