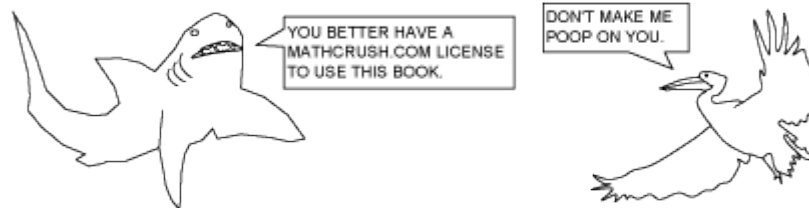


# MULTIPLICATION - LEVEL 2



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## MULTIPLICATION FACTS - CHART 2

1 X 1 = 1	1 X 2 = 2	1 X 3 = 3	1 X 4 = 4
2 X 1 = 2	2 X 2 = 4	2 X 3 = 6	2 X 4 = 8
3 X 1 = 3	3 X 2 = 6	3 X 3 = 9	3 X 4 = 12
4 X 1 = 4	4 X 2 = 8	4 X 3 = 12	4 X 4 = 16
5 X 1 = 5	5 X 2 = 10	5 X 3 = 15	5 X 4 = 20
6 X 1 = 6	6 X 2 = 12	6 X 3 = 18	6 X 4 = 24
7 X 1 = 7	7 X 2 = 14	7 X 3 = 21	7 X 4 = 28
8 X 1 = 8	8 X 2 = 16	8 X 3 = 24	8 X 4 = 32
9 X 1 = 9	9 X 2 = 18	9 X 3 = 27	9 X 4 = 36
10 X 1 = 10	10 X 2 = 20	10 X 3 = 30	10 X 4 = 40
11 X 1 = 11	11 X 2 = 22	11 X 3 = 33	11 X 4 = 44
12 X 1 = 12	12 X 2 = 24	12 X 3 = 36	12 X 4 = 48
13 X 1 = 13	13 X 2 = 26	13 X 3 = 39	13 X 4 = 52
1 X 5 = 5	1 X 6 = 6	1 X 7 = 7	1 X 8 = 8
2 X 5 = 10	2 X 6 = 12	2 X 7 = 14	2 X 8 = 16
3 X 5 = 15	3 X 6 = 18	3 X 7 = 21	3 X 8 = 24
4 X 5 = 20	4 X 6 = 24	4 X 7 = 28	4 X 8 = 32
5 X 5 = 25	5 X 6 = 30	5 X 7 = 35	5 X 8 = 40
6 X 5 = 30	6 X 6 = 36	6 X 7 = 42	6 X 8 = 48
7 X 5 = 35	7 X 6 = 42	7 X 7 = 49	7 X 8 = 56
8 X 5 = 40	8 X 6 = 48	8 X 7 = 56	8 X 8 = 64
9 X 5 = 45	9 X 6 = 54	9 X 7 = 63	9 X 8 = 72
10 X 5 = 50	10 X 6 = 60	10 X 7 = 70	10 X 8 = 80
11 X 5 = 55	11 X 6 = 66	11 X 7 = 77	11 X 8 = 88
12 X 5 = 60	12 X 6 = 72	12 X 7 = 84	12 X 8 = 96
13 X 5 = 65	13 X 6 = 78	13 X 7 = 91	13 X 8 = 104
1 X 9 = 9	1 X 10 = 10	1 X 11 = 11	1 X 12 = 12
2 X 9 = 18	2 X 10 = 20	2 X 11 = 22	2 X 12 = 24
3 X 9 = 27	3 X 10 = 30	3 X 11 = 33	3 X 12 = 36
4 X 9 = 36	4 X 10 = 40	4 X 11 = 44	4 X 12 = 48
5 X 9 = 45	5 X 10 = 50	5 X 11 = 55	5 X 12 = 60
6 X 9 = 54	6 X 10 = 60	6 X 11 = 66	6 X 12 = 72
7 X 9 = 63	7 X 10 = 70	7 X 11 = 77	7 X 12 = 84
8 X 9 = 72	8 X 10 = 80	8 X 11 = 88	8 X 12 = 96
9 X 9 = 81	9 X 10 = 90	9 X 11 = 99	9 X 12 = 108
10 X 9 = 90	10 X 10 = 100	10 X 11 = 110	10 X 12 = 120
11 X 9 = 99	11 X 10 = 110	11 X 11 = 121	11 X 12 = 132
12 X 9 = 108	12 X 10 = 120	12 X 11 = 132	12 X 12 = 144
13 X 9 = 117	13 X 10 = 130	13 X 11 = 143	13 X 12 = 156
			13 X 13 = 169

## REVIEW - C

35 IS A MULTIPLE OF 5 AND 7,  
BECAUSE  $5 \times 7 = 35$ .

THE WORD, *MULTIPLE*, JUST  
MEANS THE ANSWER YOU  
GET WHEN YOU MULTIPLY.

5 X 7 = _____	11 X 6 = _____	10 X 10 = _____
12 X 4 = _____	13 X 11 = _____	4 X 4 = _____
13 X 10 = _____	5 X 3 = _____	2 X 2 = _____
7 X 2 = _____	11 X 9 = _____	1 X 7 = _____
0 X 10 = _____	4 X 8 = _____	11 X 7 = _____
2 X 3 = _____	5 X 5 = _____	4 X 5 = _____
4 X 7 = _____	8 X 7 = _____	6 X 10 = _____
7 X 4 = _____	9 X 8 = _____	9 X 11 = _____
11 X 10 = _____	12 X 1 = _____	12 X 9 = _____
3 X 7 = _____	6 X 2 = _____	4 X 2 = _____
13 X 12 = _____	8 X 8 = _____	2 X 4 = _____
5 X 6 = _____	8 X 13 = _____	0 X 8 = _____
9 X 11 = _____	9 X 12 = _____	11 X 12 = _____
5 X 7 = _____	11 X 9 = _____	5 X 9 = _____
7 X 4 = _____	10 X 6 = _____	7 X 7 = _____
4 X 10 = _____	7 X 11 = _____	9 X 4 = _____
12 X 9 = _____	6 X 8 = _____	11 X 9 = _____
3 X 3 = _____	2 X 12 = _____	10 X 7 = _____
12 X 0 = _____	10 X 0 = _____	6 X 5 = _____
6 X 2 = _____	5 X 5 = _____	4 X 4 = _____
9 X 9 = _____	4 X 3 = _____	12 X 12 = _____
11 X 7 = _____	9 X 12 = _____	3 X 3 = _____
6 X 5 = _____	12 X 11 = _____	11 X 9 = _____
9 X 12 = _____	8 X 8 = _____	4 X 7 = _____
7 X 9 = _____	4 X 5 = _____	9 X 10 = _____
4 X 0 = _____	6 X 6 = _____	5 X 12 = _____
7 X 3 = _____	8 X 8 = _____	4 X 8 = _____
6 X 7 = _____	9 X 9 = _____	6 X 6 = _____

## TIME TESTS



HERE ARE SOME **TIME TESTS** FOR YOU TO PRACTICE ON. ASK A FRIEND OR PARTNER TO TIME YOU AND CHECK YOUR ANSWERS.

EACH TEST SHOULD TAKE ABOUT 4 MINUTES, BUT YOUR GOAL IS TO GET FASTER AND FASTER.



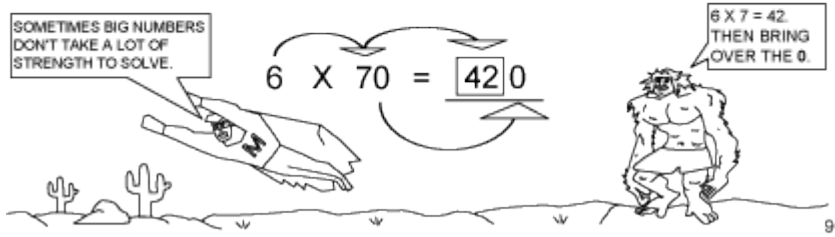
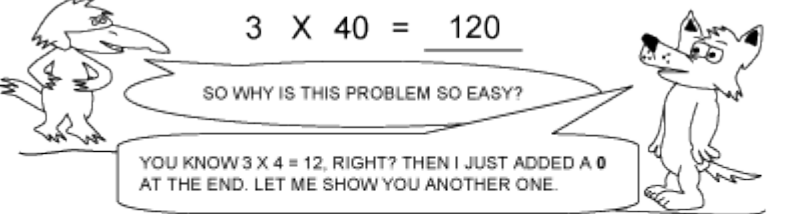
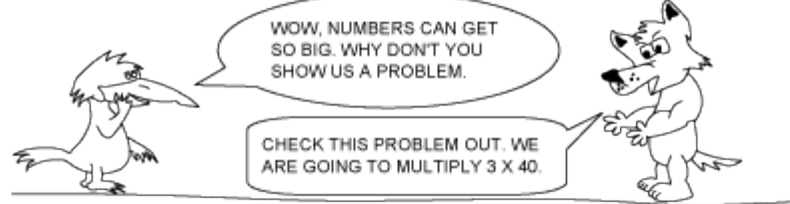
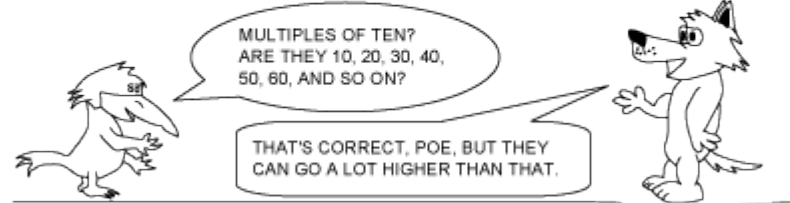
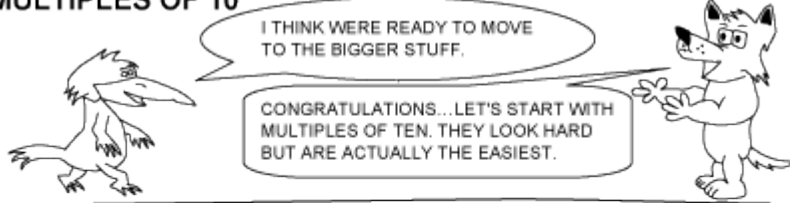
### TIME TEST - A

6 X 13 =	6 X 12 =	13 X 4 =
11 X 4 =	13 X 1 =	3 X 7 =
3 X 2 =	13 X 7 =	8 X 8 =
12 X 11 =	2 X 4 =	13 X 13 =
8 X 9 =	13 X 12 =	13 X 5 =
10 X 3 =	12 X 9 =	7 X 4 =
9 X 11 =	5 X 1 =	9 X 9 =
5 X 5 =	4 X 13 =	2 X 2 =
7 X 7 =	12 X 11 =	8 X 6 =
8 X 4 =	9 X 11 =	9 X 13 =
5 X 2 =	5 X 5 =	0 X 11 =
3 X 13 =	6 X 8 =	10 X 8 =
8 X 4 =	9 X 13 =	5 X 9 =
5 X 2 =	13 X 11 =	13 X 7 =
3 X 13 =	7 X 10 =	11 X 2 =

SO HOW YOU DOING? IF YOU'RE STRUGGLING, TRY DOING THE EASY PROBLEMS FIRST, YOU KNOW, LIKE 5 X 2, 13 X 1, OR 0 X 11. THAT WAY YOU GET THOSE DONE. THEN GO BACK AND DO THE HARDER ONES.



# MULTIPLES OF 10



## PRACTICE - A



MATHEMATICIANS LIKE TO CALL THIS MENTAL MATH. BECAUSE YOU CAN DO IT IN YOUR HEAD. SOME PEOPLE JUST GO MENTAL.



I THINK I WAS MENTAL TO TRY THIS!

### HELPFUL EXAMPLE

$$4 \times 1,200 =$$

$$\textcircled{4} \times \textcircled{12}00 = \textcircled{48}00 = \boxed{4,800}$$

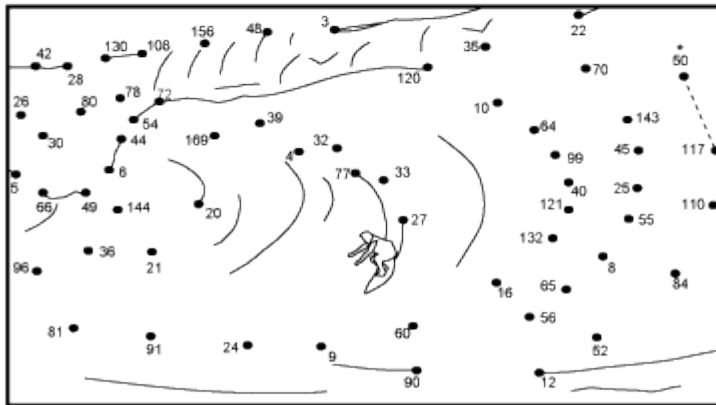
- |                             |                             |
|-----------------------------|-----------------------------|
| 1. $3 \times 50 =$ _____    | 2. $2 \times 8,000 =$ _____ |
| $3 \times 500 =$ _____      | $2 \times 80 =$ _____       |
| $3 \times 5,000 =$ _____    | $2 \times 800 =$ _____      |
| 3. $9 \times 2 =$ _____     | 4. $6 \times 300 =$ _____   |
| $9 \times 2,000 =$ _____    | $6 \times 30 =$ _____       |
| $9 \times 200 =$ _____      | $6 \times 30,000 =$ _____   |
| 5. $4 \times 7,000 =$ _____ | 6. $9 \times 4 =$ _____     |
| $4 \times 70 =$ _____       | $9 \times 400 =$ _____      |
| $4 \times 700 =$ _____      | $9 \times 4,000 =$ _____    |
| 7. $8 \times 30 =$ _____    | 8. $11 \times 2 =$ _____    |
| $8 \times 3,000 =$ _____    | $11 \times 200 =$ _____     |
| $8 \times 300 =$ _____      | $11 \times 2,000 =$ _____   |

**DIRECTIONS:**

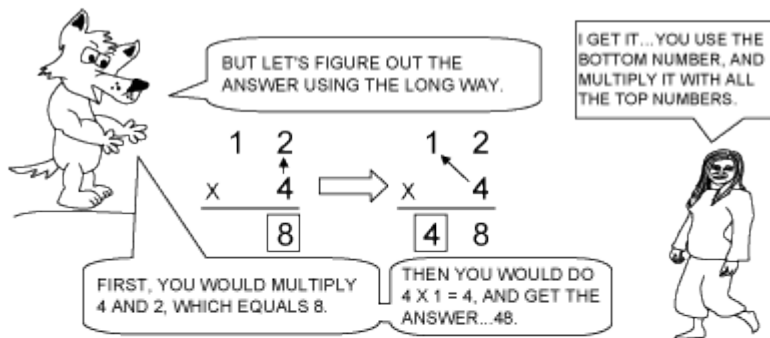
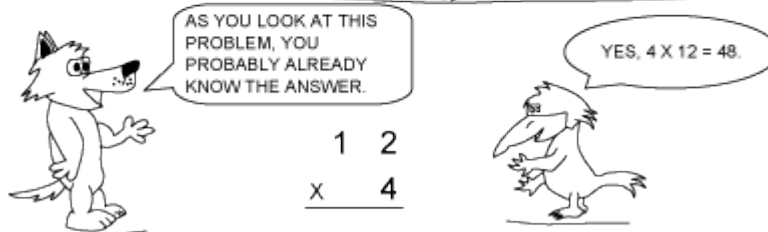
NAME: \_\_\_\_\_

ANSWER THE PROBLEMS BELOW AND CONNECT THE DOTS IN THE ORDER YOU CREATED.  
 I STARTED THE PATTERN FOR YOU...NOW YOU DO THE REST.  
 NOTE: PATTERNS ARE NOT CONNECTED TOGETHER.

PATTERN #1	PATTERN #2	PATTERN #3	PATTERN #4
10 X 5 = <u>50</u>	9 X 3 = _____	2 X 11 = _____	6 X 7 = _____
9 X 13 = <u>117</u>	11 X 3 = _____	7 X 5 = _____	13 X 2 = _____
11 X 10 = _____	8 X 4 = _____	12 X 10 = _____	5 X 1 = _____
12 X 7 = _____	3 X 13 = _____	5 X 2 = _____	6 X 11 = _____
4 X 13 = _____	9 X 8 = _____	8 X 8 = _____	5 X 6 = _____
3 X 4 = _____	1 X 3 = _____	9 X 11 = _____	7 X 4 = _____
9 X 10 = _____	4 X 12 = _____	5 X 8 = _____	10 X 13 = _____
8 X 7 = _____	13 X 12 = _____	11 X 11 = _____	10 X 8 = _____
13 X 5 = _____	12 X 9 = _____	12 X 11 = _____	7 X 7 = _____
2 X 4 = _____	6 X 13 = _____	2 X 8 = _____	3 X 2 = _____
11 X 5 = _____	11 X 4 = _____	10 X 6 = _____	12 X 12 = _____
5 X 5 = _____	6 X 9 = _____	3 X 3 = _____	9 X 4 = _____
9 X 5 = _____	13 X 13 = _____	3 X 8 = _____	12 X 8 = _____
13 X 11 = _____	2 X 2 = _____	13 X 7 = _____	3 X 7 = _____
7 X 10 = _____	7 X 11 = _____	9 X 9 = _____	5 X 4 = _____
LINE ENDS	LINE ENDS	LINE ENDS	LINE ENDS



## MULTIPLYING BY ONE DIGIT





# PRACTICE - A

NOW IT'S YOUR TURN. REMEMBER TO SHOW YOUR WORK.

I'M GLAD WE'RE LEARNING ANOTHER WAY... I WAS RUNNING OUT OF FINGERS.



MULTIPLY FROM RIGHT TO LEFT.

## HELPFUL EXAMPLE

$$\begin{array}{r}
 42 \\
 \times 2 \\
 \hline
 \end{array}
 \Rightarrow
 \begin{array}{r}
 42 \\
 \times 2 \\
 \hline
 4
 \end{array}
 \Rightarrow
 \begin{array}{r}
 42 \\
 \times 2 \\
 \hline
 84
 \end{array}
 = 84$$

1.  $\begin{array}{r} 34 \\ \times 2 \\ \hline \end{array}$     2.  $\begin{array}{r} 12 \\ \times 4 \\ \hline \end{array}$     3.  $\begin{array}{r} 33 \\ \times 3 \\ \hline \end{array}$     4.  $\begin{array}{r} 14 \\ \times 2 \\ \hline \end{array}$     5.  $\begin{array}{r} 22 \\ \times 3 \\ \hline \end{array}$

6.  $\begin{array}{r} 44 \\ \times 2 \\ \hline \end{array}$     7.  $\begin{array}{r} 30 \\ \times 3 \\ \hline \end{array}$     8.  $\begin{array}{r} 85 \\ \times 1 \\ \hline \end{array}$     9.  $\begin{array}{r} 24 \\ \times 2 \\ \hline \end{array}$     10.  $\begin{array}{r} 43 \\ \times 2 \\ \hline \end{array}$

11.  $\begin{array}{r} 40 \\ \times 2 \\ \hline \end{array}$     12.  $\begin{array}{r} 22 \\ \times 4 \\ \hline \end{array}$     13.  $\begin{array}{r} 31 \\ \times 2 \\ \hline \end{array}$     14.  $\begin{array}{r} 78 \\ \times 0 \\ \hline \end{array}$     15.  $\begin{array}{r} 21 \\ \times 3 \\ \hline \end{array}$

16.  $\begin{array}{r} 11 \\ \times 6 \\ \hline \end{array}$     17.  $\begin{array}{r} 13 \\ \times 3 \\ \hline \end{array}$     18.  $\begin{array}{r} 42 \\ \times 2 \\ \hline \end{array}$     19.  $\begin{array}{r} 30 \\ \times 2 \\ \hline \end{array}$     20.  $\begin{array}{r} 64 \\ \times 0 \\ \hline \end{array}$

21.  $\begin{array}{r} 67 \\ \times 1 \\ \hline \end{array}$     22.  $\begin{array}{r} 20 \\ \times 4 \\ \hline \end{array}$     23.  $\begin{array}{r} 11 \\ \times 8 \\ \hline \end{array}$     24.  $\begin{array}{r} 31 \\ \times 3 \\ \hline \end{array}$     25.  $\begin{array}{r} 33 \\ \times 2 \\ \hline \end{array}$

# CARRYING



WOW, HE'S PRETTY EAGER TODAY... CHECK THIS PROBLEM OUT.

YOU FIRST DO 4 TIMES 3, WHICH EQUALS 12.

BUT YOU CAN ONLY HAVE ONE DIGIT IN EACH SPACE, SO YOU NEED TO MOVE THE 1 OVER.

THEN YOU MULTIPLY 2 BY 4, WHICH EQUALS 8, AND ADD THE 1... ANSWER IS 92.

$$\begin{array}{r} 23 \\ \times 4 \\ \hline 12 \end{array} \Rightarrow \begin{array}{r} 23 \\ \times 4 \\ \hline 12 \end{array} \Rightarrow \begin{array}{r} 1 \\ 23 \\ \times 4 \\ \hline 92 \end{array}$$

**PRACTICE - B**

DON'T FORGET, ORDER DOES NOT MATTER WHEN YOU'RE ONLY MULTIPLYING.

YOU CAN CHANGE THE ORDER TO MAKE THE PROBLEM EASIER.

15 X 6 IS THE SAME AS 6 X 15.

**HELPFUL EXAMPLE**

$$\begin{array}{r} 15 \\ \times 6 \\ \hline 30 \end{array} \Rightarrow \begin{array}{r} 15 \\ \times 6 \\ \hline 30 \end{array} \Rightarrow \begin{array}{r} 15 \\ \times 6 \\ \hline 0 \end{array} \Rightarrow \begin{array}{r} 15 \\ \times 6 \\ \hline 90 \end{array} = 90$$

1.  $3 \times 32 =$  \_\_\_\_\_
2.  $4 \times 17 =$  \_\_\_\_\_
3.  $3 \times 27 =$  \_\_\_\_\_
  
4.  $6 \times 14 =$  \_\_\_\_\_
5.  $12 \times 8 =$  \_\_\_\_\_
6.  $4 \times 21 =$  \_\_\_\_\_
  
7.  $43 \times 2 =$  \_\_\_\_\_
8.  $5 \times 15 =$  \_\_\_\_\_
9.  $3 \times 19 =$  \_\_\_\_\_
  
10.  $12 \times 6 =$  \_\_\_\_\_
11.  $0 \times 68 =$  \_\_\_\_\_
12.  $21 \times 4 =$  \_\_\_\_\_
  
13.  $3 \times 20 =$  \_\_\_\_\_
14.  $39 \times 2 =$  \_\_\_\_\_
15.  $7 \times 13 =$  \_\_\_\_\_

## DOUBLE CARRYING



HEY POE, YOU READY TO PUT ALL THIS TOGETHER?

I'LL ASSUME YOU'RE TALKING ABOUT CARRYING MORE THAN ONCE IN A PROBLEM.



EXACTLY. IF YOU REMEMBER, WE DID THE SAME THING WHILE ADDING.

I KIND OF REMEMBER, BUT WHY DON'T YOU REFRESH OUR MEMORIES WITH AN EXAMPLE.



CHECK OUT THIS PROBLEM.

$$\begin{array}{r}
 86 \\
 \times 3 \\
 \hline
 \end{array}
 \Rightarrow
 \begin{array}{r}
 86 \\
 \times 3 \\
 \hline
 18
 \end{array}
 \Rightarrow
 \begin{array}{r}
 86 \\
 \times 3 \\
 \hline
 18
 \end{array}
 \Rightarrow
 \begin{array}{r}
 \textcircled{1} \\
 86 \\
 \times 3 \\
 \hline
 8
 \end{array}$$

SEE HOW WE HAD TO CARRY THE FIRST DIGIT ON THE LEFT?

$$\begin{array}{r}
 + 1 \\
 86 \\
 \times 3 \\
 \hline
 258
 \end{array}
 \Rightarrow
 \begin{array}{r}
 1 \\
 86 \\
 \times 3 \\
 \hline
 258
 \end{array}
 \Rightarrow
 \begin{array}{r}
 \textcircled{2} \quad 1 \\
 86 \\
 \times 3 \\
 \hline
 58
 \end{array}
 \Rightarrow
 \begin{array}{r}
 2 \\
 86 \\
 \times 3 \\
 \hline
 258
 \end{array}$$



THEN WE MULTIPLY AND ADD, BUT AGAIN, WE NEED TO CARRY. LAST, JUST BRING THE NUMBER STRAIGHT DOWN.

WE'RE DOING THE EXACT SAME THING, BUT NOW IT'S ALL IN ONE PROBLEM.



**PRACTICE - A**

**HELPFUL EXAMPLE**

DO YOU REALLY HAVE TO BRING THE 3 UP AND OVER?

CARRY THE 2 OVER...DO  $7 \times 5 = 35$ ...THEN ADD THE 2...ANSWER IS 37.

BRING THE 3 UP AND OVER...NOTHING BELOW SO LET IT FALL...ANSWER IS 371.

1.  $\begin{array}{r} 43 \\ \times 5 \\ \hline \end{array}$     2.  $\begin{array}{r} 46 \\ \times 3 \\ \hline \end{array}$     3.  $\begin{array}{r} 81 \\ \times 6 \\ \hline \end{array}$     4.  $\begin{array}{r} 73 \\ \times 7 \\ \hline \end{array}$     5.  $\begin{array}{r} 99 \\ \times 4 \\ \hline \end{array}$

6.  $\begin{array}{r} 36 \\ \times 3 \\ \hline \end{array}$     7.  $\begin{array}{r} 62 \\ \times 8 \\ \hline \end{array}$     8.  $\begin{array}{r} 39 \\ \times 4 \\ \hline \end{array}$     9.  $\begin{array}{r} 87 \\ \times 2 \\ \hline \end{array}$     10.  $\begin{array}{r} 45 \\ \times 7 \\ \hline \end{array}$

11.  $\begin{array}{r} 85 \\ \times 9 \\ \hline \end{array}$     12.  $\begin{array}{r} 24 \\ \times 7 \\ \hline \end{array}$     13.  $\begin{array}{r} 70 \\ \times 6 \\ \hline \end{array}$     14.  $\begin{array}{r} 44 \\ \times 4 \\ \hline \end{array}$     15.  $\begin{array}{r} 28 \\ \times 6 \\ \hline \end{array}$

16.  $\begin{array}{r} 35 \\ \times 8 \\ \hline \end{array}$     17.  $\begin{array}{r} 77 \\ \times 3 \\ \hline \end{array}$     18.  $\begin{array}{r} 57 \\ \times 5 \\ \hline \end{array}$     19.  $\begin{array}{r} 32 \\ \times 7 \\ \hline \end{array}$     20.  $\begin{array}{r} 64 \\ \times 4 \\ \hline \end{array}$

21.  $\begin{array}{r} 23 \\ \times 7 \\ \hline \end{array}$     22.  $\begin{array}{r} 82 \\ \times 6 \\ \hline \end{array}$     23.  $\begin{array}{r} 38 \\ \times 4 \\ \hline \end{array}$     24.  $\begin{array}{r} 25 \\ \times 9 \\ \hline \end{array}$     25.  $\begin{array}{r} 47 \\ \times 5 \\ \hline \end{array}$

## MULTIPLYING BY 2 DIGITS



I HOPE THE ADDING PRACTICE HELPED, BECAUSE WE NEED TO START TWO DIGIT MULTIPLICATION.

I'LL ASSUME YOU MEAN HAVING TWO NUMBERS ON THE BOTTOM.



VERY GOOD, POE. TAKE A LOOK AT THIS PROBLEM.

$$\begin{array}{r} 12 \\ \times 34 \\ \hline \end{array}$$

WOW...SO HOW DO YOU SOLVE THIS?



WHEN I FIRST STARTED LEARNING HOW TO SOLVE THESE DOUBLE DIGIT PROBLEMS, I WOULD SPLIT THE PROBLEM INTO TWO SEPARATE ONES.

$$\begin{array}{r} 12 \\ \times 3 \end{array} \quad \leftarrow \begin{array}{r} 12 \\ \times 34 \end{array} \quad \rightarrow \begin{array}{r} 12 \\ \times 4 \end{array}$$

AND THEN I SOLVED THEM SEPARATELY.

$$\begin{array}{r} 12 \\ \times 3 \\ \hline 36 \end{array} \quad \begin{array}{r} 12 \\ \times 34 \\ \hline 48 \end{array} \quad \begin{array}{r} 12 \\ \times 4 \\ \hline 48 \end{array}$$



NOW THE HARDEST PART TO UNDERSTAND IS WHERE TO PUT THE ANSWERS. DO YOU SEE HOW I PUT THE 8 UNDER THE 4 AND THE 6 UNDER THE 3?

YOU DO THIS BECAUSE THE 3 AND 4 ARE IN DIFFERENT PLACE VALUES. ONCE YOU LINE UP THE NUMBERS CORRECTLY YOU JUST ADD THEM TOGETHER.

$$\begin{array}{r} 12 \\ \times 34 \\ \hline 148 \\ + 360 \\ \hline 408 \end{array}$$

## PRACTICE - B



CAN YOU SEE WHY THE  
FIRST TWO PROBLEMS ARE  
EASIER THAN THE REST?

1. 
$$\begin{array}{r} \leftarrow 85 \rightarrow \\ \times 33 \rightarrow \\ \hline \end{array}$$

2. 
$$\begin{array}{r} \leftarrow 38 \rightarrow \\ \times 40 \rightarrow \\ \hline \end{array}$$

3. 
$$\begin{array}{r} \leftarrow 47 \rightarrow \\ \times 17 \rightarrow \\ \hline \end{array}$$

4. 
$$\begin{array}{r} \leftarrow 61 \rightarrow \\ \times 29 \rightarrow \\ \hline \end{array}$$

5. 
$$\begin{array}{r} \leftarrow 83 \rightarrow \\ \times 62 \rightarrow \\ \hline \end{array}$$

6. 
$$\begin{array}{r} \leftarrow 91 \rightarrow \\ \times 74 \rightarrow \\ \hline \end{array}$$

7. 
$$\begin{array}{r} \leftarrow 17 \rightarrow \\ \times 46 \rightarrow \\ \hline \end{array}$$

8. 
$$\begin{array}{r} \leftarrow 46 \rightarrow \\ \times 17 \rightarrow \\ \hline \end{array}$$

9. 
$$\begin{array}{r} \leftarrow 62 \rightarrow \\ \times 53 \rightarrow \\ \hline \end{array}$$

10. 
$$\begin{array}{r} \leftarrow 59 \rightarrow \\ \times 24 \rightarrow \\ \hline \end{array}$$

PRACTICE - A

HELPFUL EXAMPLE

$$\begin{array}{r} 75 \\ \times 49 \\ \hline \end{array} \Rightarrow \begin{array}{r} 6 \quad 4 \\ \downarrow \quad \uparrow \\ 75 \\ \times 49 \\ \hline 675 \end{array} \Rightarrow \begin{array}{r} 3 \quad 2 \\ \downarrow \quad \uparrow \\ 75 \\ \times 49 \\ \hline 675 \\ + 3000 \\ \hline \end{array} \Rightarrow \begin{array}{r} 3 \quad 2 \\ \downarrow \quad \uparrow \\ 75 \\ \times 49 \\ \hline 675 \\ + 3000 \\ \hline 3675 \end{array}$$

ANSWER

$$\begin{array}{r} 75 \\ \times 9 \\ \hline \end{array} \rightarrow \begin{array}{r} 75 \\ \times 9 \\ \hline 45 \end{array} \rightarrow \begin{array}{r} +4 \\ 75 \\ \times 9 \\ \hline 675 \end{array} \rightarrow \begin{array}{r} +4 \\ 75 \\ \times 9 \\ \hline 675 \end{array} \quad \text{AND} \quad \begin{array}{r} 75 \\ \times 4 \\ \hline \end{array} \rightarrow \begin{array}{r} 75 \\ \times 4 \\ \hline 20 \end{array} \rightarrow \begin{array}{r} +2 \\ 75 \\ \times 4 \\ \hline 300 \end{array} \rightarrow \begin{array}{r} +2 \\ 75 \\ \times 4 \\ \hline 300 \end{array}$$

1. 
$$\begin{array}{r} 56 \\ \times 27 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 77 \\ \times 38 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 42 \\ \times 61 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 34 \\ \times 39 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 81 \\ \times 45 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 53 \\ \times 24 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 60 \\ \times 16 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 47 \\ \times 32 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 79 \\ \times 53 \\ \hline \end{array}$$



## PRACTICE TEST

- WELL, YOU'RE ALMOST DONE. BUT BEFORE YOU MOVE ON TO BETTER AND MORE CHALLENGING MATH, TAKE A MOMENT TO COMPLETE THESE TWO PAGES.



1.  $5 \times 500 =$  \_\_\_\_\_
2.  $6 \times 7,000 =$  \_\_\_\_\_
3.  $2 \times 80 =$  \_\_\_\_\_
4.  $3 \times 1,200 =$  \_\_\_\_\_
5.  $4 \times 600 =$  \_\_\_\_\_
6.  $8 \times 70 =$  \_\_\_\_\_
7.  $9 \times 4,000 =$  \_\_\_\_\_
8.  $11 \times 1,300 =$  \_\_\_\_\_
9.  $63 \times 7 =$  \_\_\_\_\_
10.  $4 \times 89 =$  \_\_\_\_\_
11.  $92 \times 3 =$  \_\_\_\_\_

12. 
$$\begin{array}{r} 24 \\ \times 67 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 53 \\ \times 18 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 46 \\ \times 50 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 89 \\ \times 44 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 17 \\ \times 62 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 98 \\ \times 89 \\ \hline \end{array}$$

YOUR SCORE: \_\_\_\_\_ OUT OF 17

HOW YOU DID: 14-17 = ⚡ / 12-13 = ☹ / 11 OR LESS = ?

**EXTRA PRACTICE - D****MULTIPLYING BY TWO DIGITS**

1. 
$$\begin{array}{r} 46 \\ \times 36 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 71 \\ \times 17 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 89 \\ \times 51 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 35 \\ \times 42 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 34 \\ \times 28 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 44 \\ \times 63 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 58 \\ \times 27 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 82 \\ \times 14 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 79 \\ \times 14 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 30 \\ \times 33 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 61 \\ \times 23 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 23 \\ \times 54 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 56 \\ \times 21 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 16 \\ \times 47 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 92 \\ \times 38 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 35 \\ \times 26 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 70 \\ \times 11 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 65 \\ \times 30 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 74 \\ \times 59 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 93 \\ \times 68 \\ \hline \end{array}$$



YOU EITHER LOVE IT OR HATE IT.  
EITHER WAY, WE'RE HERE TO HELP.

