

Practice and Review
for *Times Tables Make Sense*Books 1, 2, and 3

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Book 1 Spot Shows Some Patterns

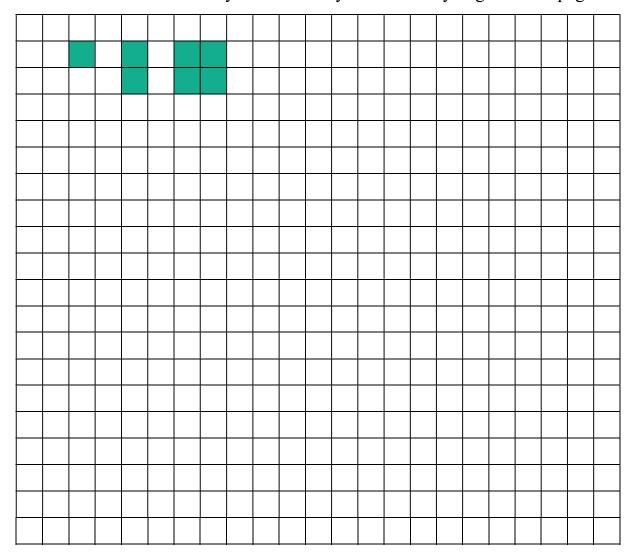
Part 1 Getting Started

Times Tables Make Sense Spot Shows Some Patterns • times tables like you've never seen before • fun, story-based learning • builds skills and confidence

See the Patterns

Numbers get big fast when you double.

Start with 1 square covered. Then double it. Double that. Keep on doubling. The first ones are done for you. How many doubles can you get on this page?



Highlight the even numbers. Start with 2, then add 2, add 2 more, add 2 more, and so on. Some are done for you.

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	93	94	95	96	97	98	99	100

Highlight the odd numbers.
Start with 1, then add 2, add 2 more, add 2 more, and so on.
Some are done for you.

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	93	94	95	96	97	98	99	100

Skip Counting

Use a highlighter to mark the numbers you say when you skip count.

Skip count by 2s.

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

Skip count by 3s.

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

Skip count by 4s.

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

Skip count by 5s.

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

Skip count by 10s.

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

Show What You Know!

Double and double again.

Keep on doubling as long as you can. Some are done for you.

2 4, 8, 16, 32, 64

Spot's giving us hints.

4 _____

3 6, 12, 24, 48, 96

6_____

5 _____

The answers in one row help with the answers in the next row!

Highlight the even numbers.

3 4 5 6 7 8 9

21 22 33 49 50 56 74 75 99

121 122 233 274 750 990 999 1000

Highlight the odd numbers.

5 6 7 8 9 3 4 1 10

21 22 33 49 50 56 74 75 99

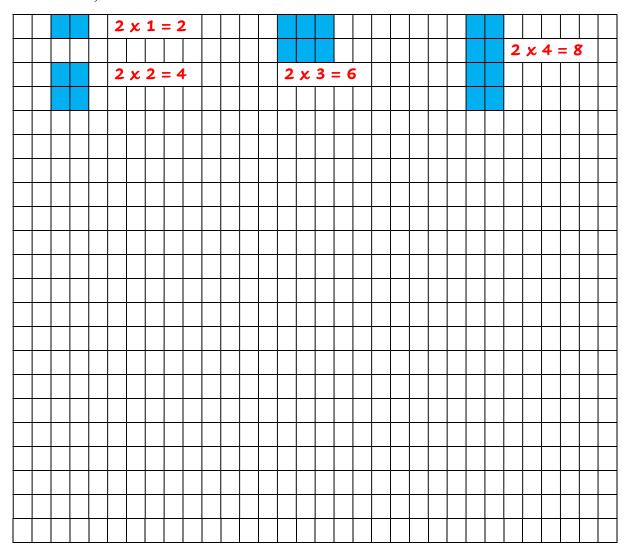
121 122 233 274 750 990 999 1000

Part 2 The 2 Times Table

See the Patterns

Multiples of 2: Use the graph paper to show some multiples of 2.

The first ones are done for you. Write a number sentence for each drawing. Your paper should show all these facts: 2 x 1, 2 x 2, 2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7, 2 x 8, 2 x 9, 2 x 10, and 2 x 11. (There is more graph paper at the end of this book.)



Skip count by 2's. Highlight the multiples of 2.

	_								
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	93	94	95	96	97	98	99	100

Show What You Know!

I know the answers from the drawings I did.

Highlight the number sentences that are true. (11 are true.)

$$2 \times 5 = 10$$

$$2 \times 4 = 8$$

$$2 \times 11 = 22$$

$$2 \times 10 = 20$$

$$2 \times 8 = 16$$

$$2 \times 0 = 0$$

$$2 \times 2 = 8$$

$$2 \times 1 = 2$$

$$2 \times 6 = 12$$

$$2 \times 7 = 14$$

$$2 \times 3 = 6$$

$$2 \times 9 = 18$$

Double and double again.

Keep on doubling as long as you can. Some are done for you.

2 4, 8, 16, 32, 64

4 _____

8 _____

3 6, 12, 24, 48, 96

6_____

10, _____

Fill in the white boxes on this chart. Work across, then down.

		0	1	2	3	4	5	6	7	8	9	10	11
	0												
	1												
Double the number!	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												

Most of the chart is still covered! That's a lot of work!



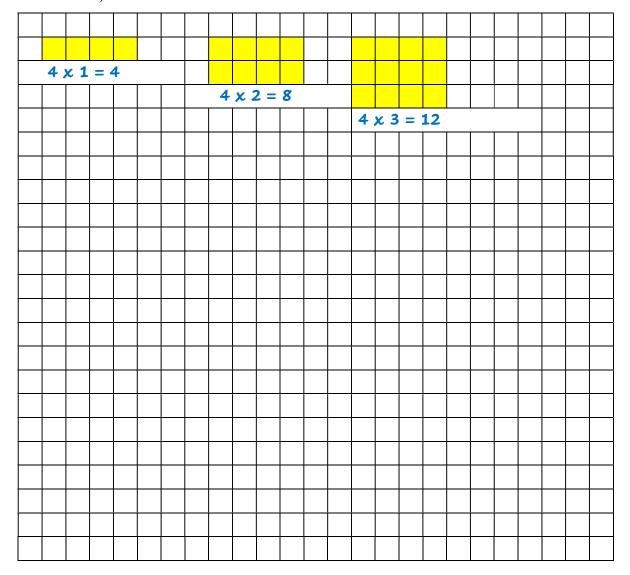
Spot said we don't have to learn the tables by heart!

Part 3 The 4 Times Table

See the Patterns

Multiples of 4: Use the graph paper to show some multiples of 4.

The first ones are done for you. Write a number sentence for each drawing. Your paper should show all these facts: 4 x 1, 4 x 2, 4 x 3, 4 x 4, 4 x 5, 4 x 6, 4 x 7, 4 x 8, 4 x 9, 4 x 10, and 4 x 11. (There is more graph paper at the end of this book.)



Skip count by 4.

Highlight the multiples of 4. Some are done for you.

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	<mark>64</mark>	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

Show What You Know!

Highlight the math sentences that are true. (11 are true)

$$4 \times 5 = 20$$
 $4 \times 4 = 16$

$$4 \times 4 = 16$$

$$4 \times 3 = 12$$

$$4 \times 9 = 36$$

$$4 \times 8 = 32$$

$$4 \times 9 = 36$$
 $4 \times 8 = 32$ $4 \times 11 = 44$

$$4 \times 2 = 8$$
 $4 \times 1 = 4$

$$4 \times 1 = 4$$

$$4 \times 6 = 24$$

$$4 \times 10 = 24$$
 $4 \times 7 = 28$

$$4 \times 7 = 28$$

$$4 \times 0 = 0$$

I can check on the pictures I drew.

Double and double again.

Keep on doubling as long as you can. Some are done for you.

2 <u>4, 8, 16, 32, 64</u>

3 <u>6, 12, 24, 48, 96</u>

6_____

5, _____

10, _____

Match.

- a. 2 times a number? Double and double again!
- b. 4 times a number? Double the number!

Finish the number sentences. (Work across the rows.)

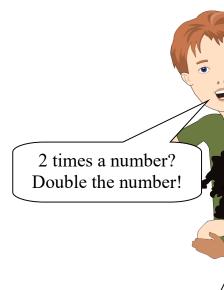
$$2 \times 5 =$$

$$4 \times 5 =$$

$$2 \times 3 =$$

$$2 \times 9 =$$

$$2 \times 0 =$$



Double and double again!

4 times a number?

Fill in the white boxes. Do the 2 times table, then the 4 times table.

		0	1	2	3	4	5	6	7	8	9	10	11
	0												
	1												
Double the number!	2												
	3												
Double and double again.	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												

Twice as much is uncovered. No memory work yet.



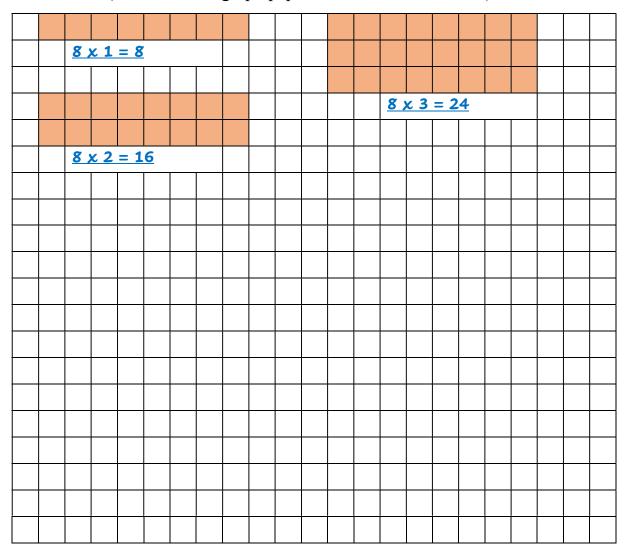
Double! and Double and double again!
The patterns help me remember the answers.

Part 4 The 8 Times Table

See the Patterns

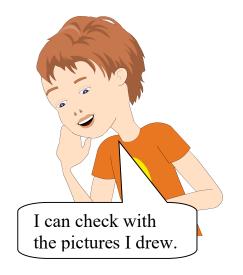
Multiples of 8

Use the graph paper to show some multiples of 8. The first ones are done for you. Write a number sentence for each drawing. Your paper should show all these facts: 8×1 , 8×2 , 8×3 , 8×4 , 8×5 , 8×6 , 8×7 , 8×8 , 8×9 , 8×10 , and 8×11 . (There is more graph paper at the end of this book.)



Skip count by 8. Highlight the multiples of 8.

	r		•		8	5			1
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	<mark>24</mark>	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	<mark>64</mark>	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	80	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Highlight the number sentences that are true. (11 are true.)

$$8 \times 7 = 56$$

$$8 \times 1 = 88$$

$$8 \times 2 = 16$$

$$8 \times 1 = 8$$

$$8 \times 4 = 32$$

$$8 \times 8 = 64$$

$$8 \times 3 = 24$$

$$8 \times 0 = 0$$

Same here!

Show What You Know!

Double and double again.

Keep on doubling as long as you can. Some are done for you.

- 2 4, 8, 16, 32, 64
- 4 _____

3 _____

6_____

Match.

- double the number! a. 4 times a number?
- double, double, double! b. 2 times a number?
- double and double again! c. 8 times a number?



2 times? Double the number!

Finish the number sentences. (Work across the rows.)

$$4 \times 6 =$$

$$8 \times 6 =$$

$$2 \times 3 =$$

$$8 \times 3 =$$

$$8 \times 9 =$$

$$8 \times 4 =$$

$$8 \times 2 =$$

$$2 \times 0 =$$

$$8 \times 11 =$$

$$8 \times 0 =$$

$$8 \times 10 =$$

$$2 \times 7 =$$

$$8 \times 7 =$$



4 times?

Double and

double again!

8 times? Double, double, double!

15

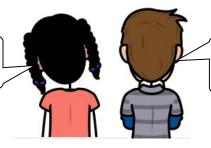
to go with Spot Shows Some Patterns

Times Tables Make Sense Book 1

Fill in the white boxes. Do the 2 times table, then the 4 times, then the 8 times table.

										ı	1		
		0	1	2	3	4	5	6	7	8	9	10	11
	0												
	1												
Double the number!	2												
	3												
Double and double again.	4												
	5												
	6												
	7												
Double, double, double!	8												
	9												
	10												
	11												

Who knew the 8 times could be so easy?



Just follow the pattern—Double, double, double!

Part 5 The 1 Times Table and **0 Times Table**



See the Patterns

Finish the number sentences.

$$1 \times 2 =$$

$$1 \times 3 =$$

$$1 \times 7 =$$

$$1 \times 9 =$$

$$1 \times 0 =$$

$$0 \times 0 =$$

$$0 \times 1 =$$

$$0 \times 2 =$$

$$0 \times 3 =$$

$$0 \times 4 =$$

$$0 \times 5 =$$

$$0 \times 6 =$$

$$0 \times 7 =$$

$$0 \times 8 =$$

$$0 \times 10 =$$

Highlight the math sentences that are true. (11 are true.)

$$0 \times 5 = 0$$

$$0 \times 3 = 0$$

$$0 \times 10 = 0$$

$$0 \times 1 = 0$$

$$0 \times 6 = 0$$
 $0 \times 7 = 0$ $1 \times 8 = 8$ $1 \times 11 = 11$

$$0 \times 7 = 0$$

$$1 \times 8 = 8$$

$$1 \times 11 = 11$$

$$1 \times 0 = 0$$

$$1 \times 9 = 9$$

$$1 \times 0 = 0$$
 $1 \times 9 = 9$ $1 \times 4 = 4$ $1 \times 2 = 0$

$$1 \times 2 = 0$$

Show What You Know!

Double and double again.

Keep on doubling as long as you can. Some are done for you.

14, <u>28, 56</u>

7 _____

2 _____

4 _____

8 _____

3 _____

6_____

5

10 _____

Match.

- a. 4 times a number? ____ always 0
- b. 2 times a number? ____ double the number
- c. 0 times a number? ____ double, double!
- d. 1 times a number? _____ double and double again
- e. 8 times a number? ____ same as the number

Finish the number sentences. (Work across the rows.)

$$8 \times 1 =$$

$$2 \times 6 =$$

$$8 \times 6 =$$

$$4 \times 11 =$$

$$8 \times 11 =$$

$$2 \times 9 =$$

$$8 \times 9 =$$

$$8 \times 10 =$$

$$2 \times 3 =$$

$$4 \times 3 =$$

$$8 \times 3 =$$

$$8 \times 7 =$$

$$2 \times 4 =$$

$$8 \times 4 =$$

$$4 \times 2 =$$

$$2 \times 0 =$$

$$8 \times 0 =$$

$$8 \times 8 =$$

$$8 \times 5 =$$

Cut each number in half, then multiply to check your answer.

Half of
$$\frac{2}{2} = \frac{1}{1}$$

$$2 \times 1 = 2$$
.

Half of <mark>4</mark> = <mark>2</mark>

$$2 \times 2 = 4$$
.

Half of 6 = _____

$$2 x = 6.$$

$$2 x = 8.$$

$$2 x = 10.$$

$$2 x = 14.$$

$$2 x _ = 18.$$
 $2 x = 20.$

How do you know you're right?

Multiply your answer by 2. It should be the number you started with.



Fill in the white boxes. Do the 2 times table, then the 4 times, then the 8 times table, then the rest.

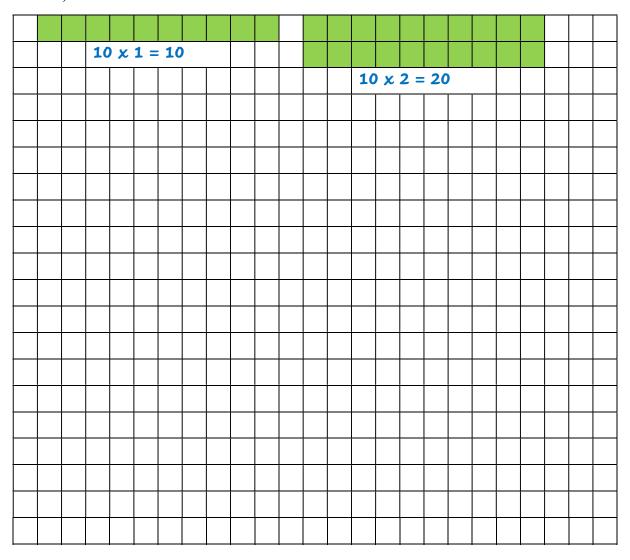
		0	1	2	3	4	5	6	7	8	9	10	11
Always 0.	0												
Same as the number.	1												
Double the number!	2												
	3												
Double and double again.	4												
	5												
	6												
	7												
Double, double, double!	8												
	9												
	10												
	11												



Part 6 The 10 Times Table

See the Patterns

Use the graph paper to show some multiples of 10. The first ones are done for you. Write a number sentence for each drawing. Your paper should show all these facts: 10×1 , 10×2 , 10×3 , 10×4 , 10×5 , 10×6 , 10×7 , 10×8 , 10×9 , 10×10 , and 10×11 . (There is more graph paper at the end of this book.)



Skip count by 10s. Highlight the multiples of 10.

				0	0				
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	93	94	95	96	97	98	99	100
101	102	103	104	205	106	107	108	109	110

Highlight the number sentences that are true. (11 are true.)

$$10 \times 5 = 50$$

$$10 \times 6 = 60$$

$$10 \times 5 = 50$$
 $10 \times 6 = 60$ $10 \times 10 = 100$

$$10 \times 3 = 30$$

$$10 \times 3 = 30$$
 $10 \times 1 = 10$ $10 \times 8 = 80$

$$10 \times 8 = 80$$

$$10 \times 4 = 40$$

$$10 \times 2 = 20$$

$$10 \times 4 = 40$$
 $10 \times 2 = 20$ $10 \times 11 = 110$

$$10 \times 0 = 0$$

$$10 \times 0 = 0$$
 $10 \times 9 = 99$ $10 \times 7 = 70$

$$10 \times 7 = 70$$

The multiples of 10 all end in 0.

Double and double again.

Keep on doubling as long as you can. Some are done for you.

14, <u>28, 56</u>

18, <u>36, 72</u>

Match.

- a. 4 times a number? same as the number
- double the number b. 2 times a number?
- c. 0 times a number? number to the 10s place, 0 in the 1s place.
- ____ always 0 d. 10 times a number?
- e. 8 times a number? double and double again
- 1 times a number? double, double, double

Finish the number sentences. (Work down).

$$5 \times 0 =$$
 $7 \times 0 =$

$$7 \times 0 =$$

$$7 \times 4 =$$

I know the pattern for one number...





I use that pattern on the other number.

Cut each number in half. Check.

Half of
$$\frac{2}{2} = \frac{1}{1}$$

$$2 \times 1 = 2$$
.

Half of
$$\frac{4}{2} = \frac{2}{2}$$
 $2 \times \frac{2}{2} = \frac{4}{2}$.

$$2 \times 2 = 4$$

Half of
$$10 = ___ = 2 x __ = 10$$
.

$$2 x = 10$$

Half of
$$20 = ___ = 2x __ = 20$$
.

$$2 x = 20.$$

Half of
$$40 = ___ = 2 x __ = 40$$
.

$$2 \text{ x} = 40.$$

Half of
$$60 = ___ = 2 x __ = 60$$
.

$$2 \text{ x} = 60.$$

Half of
$$80 = ___ = 2 x __ = 80$$
.

$$2 \text{ x} = 80.$$

Half of
$$100 = ___ = 2 x ___ = 100$$
.

Fill in the white boxes. Start with the 10 times table, then do the rest.

		0	1	2	3	4	5	6	7	8	9	10	11
Always 0.	0												
Same as the number.	1												
Double the number!	2												
	3												
Double and double again.	4												
	5												
	6												
	7												
Double, double, double!	8												
	9												
Number to the 10s place, 0 in the 1s place.	10												
	11												

The 10s table is easy, thanks to the pattern.



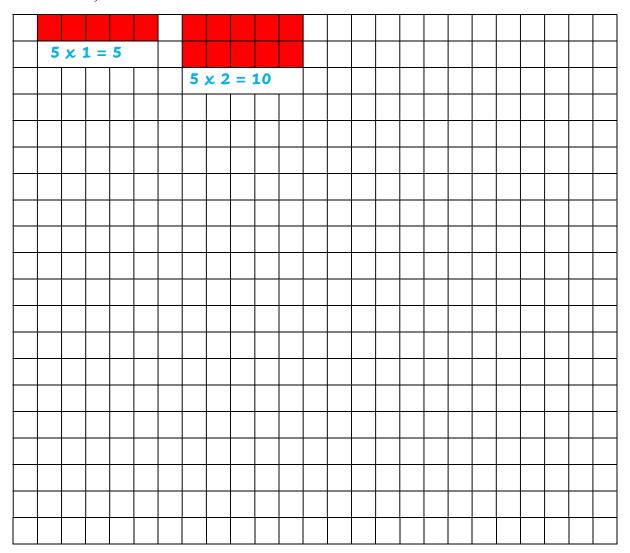
I wonder if the 5 times is connected to the 10s?

Part 7 The 5 Times Table

See the Patterns

Use the graph paper to show some multiples of 5.

The first ones are done for you. Write a number sentence for each drawing. Your paper should show all these facts: 5×1 , 5×2 , 5×3 , 5×4 , 5×5 , 5×6 , 5×7 , 5×8 , 5×9 , 5×10 , and 5×11 . (There is more graph paper at the end of this book.)



Skip count by 5s. Highlight the multiples of 5.

	1 -		v		0	8			1
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	93	94	95	96	97	98	99	100



The 5 times table *is* connected to the 10 times table!

Highlight the math sentences that are true. (11 are true.)

$$5 \times 2 = 10$$
 $5 \times 6 = 30$ $5 \times 4 = 20$ $5 \times 1 = 5$

$$5 \times 6 = 30$$

$$5 \times 4 = 20$$

$$5 \times 1 = 5$$

$$5 \times 3 = 15$$

$$5 \times 7 = 35$$

$$5 \times 8 = 40$$

$$5 \times 3 = 15$$
 $5 \times 7 = 35$ $5 \times 8 = 40$ $5 \times 9 = 45$

$$5 \times 10 = 50$$

$$5 \times 5 = 25$$

$$5 \times 10 = 50$$
 $5 \times 5 = 25$ $5 \times 11 = 60$ $5 \times 0 = 0$

$$5 \times 0 = 0$$

Show What You Know!

Double and double again.

Keep on doubling as long as you can. Some are done for you.

14, <u>28, 56</u>

7 _____

18, <u>36, 72</u>

2 _____

8 _____

3 _____

6_____

5 _____

10 _____

Match

- a. 4 times a number same as the number
- b. 2 times a number _____ double and double again
- c. 0 times a number half of 10 times the number
- d. 10 times a number always 0
- e. 8 times a number number to the 10s place, 0 in the 1s place.
- f. 1 times a number _____ double, double
- g. 5 times a number _____ double the number

Finish the number sentences. Work across.

$$10 \times 4 =$$

$$10 \times 3 =$$

$$10 \times 11 =$$

$$10 \times 5 =$$

$$10 \ x \ 0 =$$

When there is an odd 10, you have to divide it in half!

Now try these.

$$4 \times 6 =$$

Fill in the white boxes. Start with the 10 times table, then the 5 times table, then the rest.

		l	l	ı	1	l	l		ı	ı			
		0	1	2	3	4	5	6	7	8	9	10	11
Always 0.	0												
Same as the number.	1												
Double the number!	2												
	3												
Double and double again.	4												
Half of 10 times the number.	5												
	6												
	7												
Double, double, double!	8												
	9												
Number to the 10s place, 0 in the 1s place.	10												
	11												

Patterns! Patterns! Patterns! Not many squares left to uncover.



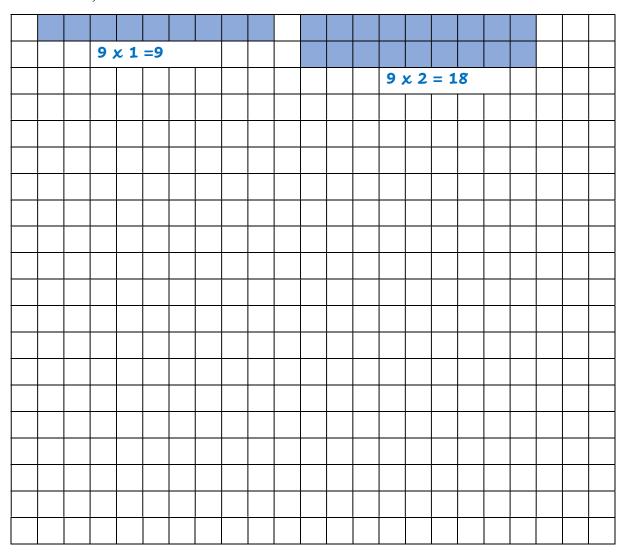
Have I had to memorize any number facts yet?
No! No! No!

Part 8 The 9 Times Table

See the Patterns

Multiples of 9: Use the graph paper to show some multiples of 9.

The first ones are done for you. Write a number sentence for each drawing. Your paper should show all these facts: 9 x 1, 9 x 2, 9 x 3, 9 x 4, 9 x 5, 9 x 6, 9 x 7, 9 x 8, 9 x 9, 9 x 10 and 9 x 11. (There is more graph paper at the end of this book.)



Highlight the multiples of 9. Skip count by 9s.

.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	93	94	95	96	97	98	99	100



subtract 1.
That's the easy way to add 9.

Show what you know

Highlight the math sentences that are true. (11 are true.)

$$9 \times 1 = 9$$

$$9 \times 9 = 81$$

$$9 \times 2 = 18$$

$$9 \times 10 = 90$$

$$9 \times 5 = 45$$

$$9 \times 4 = 36$$

$$9 \times 0 = 0$$

$$9 \times 7 = 63$$

$$9 \times 8 = 72$$

$$9 \times 3 = 27$$

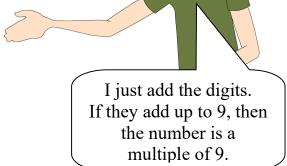
$$9 \times 11 = 99$$

$$9 \times 6 = 73$$

Highlight the multiples of 9.

	0		_				
9	18	24	27	36	45	50	54
60	63	65	72	79	81	88	90

99 100



32

Read your hands to find the answers in the 9 times table.



9 x 1 =



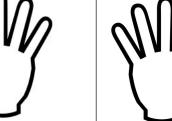


 $9 \times 2 =$





 $9 \times 3 =$



 $9 \times 4 =$





9 x 5 = ____



9 x 6 = ____



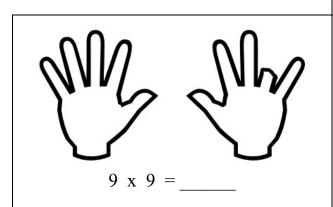


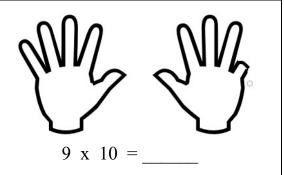
 $9 \times 7 =$



9 x 8 = ____







Double and double again.

Keep on doubling as long as you can.

- 2 _____
- 3
- 5 _____
- 7 _____
- 9 _____
- 11

Match.

- a. 4 times a number number to the 10s place, 0 in the 1s place
- b. 2 times a number double the number
- c. 0 times a number read your hands
- d. 10 times a number _____ double and double again
- e. 8 times a number ____ always 0
- f. 1 times a number _____ double, double
- g. 5 times a number same as the number
- h. 9 times a number half of 10 times the number

Finish these number sentences.

$$7 \times 2 =$$

$$6 \times 4 =$$

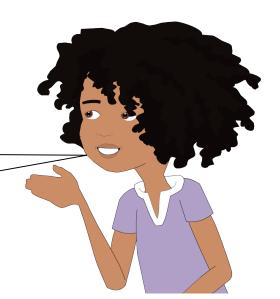
$$6 \times 8 =$$

$$6 \times 10 =$$

$$3 \times 5 =$$

$$6 \times 5 =$$

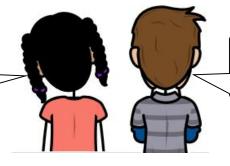
I know the pattern for one of the numbers. I use the pattern to find the answer.



Fill in the white boxes. Do the hardest one first, then the rest.

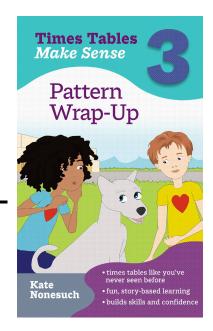
		0	1	2	3	4	5	6	7	8	9	10	11
		Ļ				_							
Always 0.	0												
Same as the number.	1												
Double the number!	2												
	3												
Double and double again.	4												
Half of 10 times the number.	5												
	6												
	7												
Double, double, double!	8												
Read your hands.	9												
Number to the 10s place, 0 in the 1s place.	10												
	11												

Only 16 squares still covered!



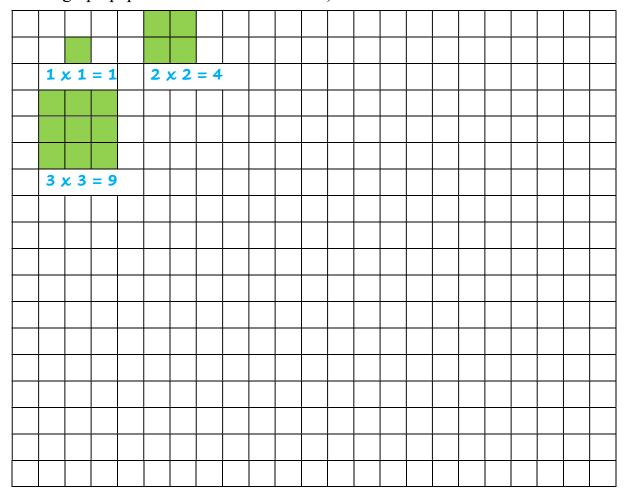
And I remember all the answers by thinking about the patterns.

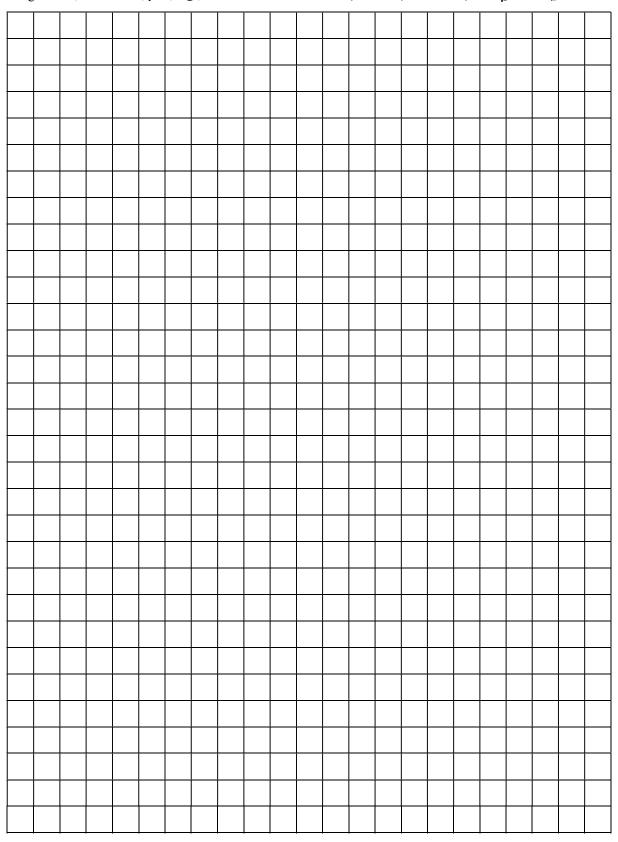
Part 9 Square Numbers



See the Patterns

Draw the square numbers: 1×1 , 2×2 , 3×3 , 4×4 , 5×5 , 6×6 , 7×7 , 8×8 , 9×9 , 10×10 , 11×11 . Write the number sentence that goes with each square. (There is more graph paper at the end of this book.)





Highlight all the square numbers.

8	8			1					
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	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130

Show What You Know

Highlight the math sentences that are true. (11 are true.)

$$0 \times 0 = 0$$

$$1 \times 1 = 1$$

$$2 \times 2 = 4$$

$$3 \times 3 = 9$$

$$4 \times 4 = 16$$

$$3 \times 3 = 9$$
 $4 \times 4 = 16$ $5 \times 5 = 25$

$$6 \times 6 = 36$$

$$7 \times 7 = 49$$

$$6 \times 6 = 36$$
 $7 \times 7 = 49$ $8 \times 8 = 64$

$$9 \times 9 = 81$$

$$9 \times 9 = 81$$
 $10 \times 10 = 100$ $11 \times 11 = 111$

$$11 \times 11 = 111$$

Double and double again.

Double and keep on doubling as long as you can.

3 _____

5_____

7 _____

9_____

11_____

Match.

- a. 4 times a number? ____ number to the 10s place, 0 in the 1s place
- b. 2 times a number? double the number
- c. 0 times a number? read your hands
- d. 10 times a number? _____ double and double again
- e. 8 times a number? always 0
- f. 1 times a number? double, double, double
- g. 5 times a number? same as the number
- h. 9 times a number? half of 10 times the number

Finish these number sentences.

Read your hands, or use another pattern. You choose.

$$9 \times 0 =$$

$$9 \times 1 =$$

$$9 \times 2 =$$

$$9 \times 4 =$$

$$9 \times 5 =$$

We know a lot

of patterns!

Use the patterns you know to find some answers in the 3 times table.

$$3 \times 0 =$$

$$3 \times 4 =$$

$$3 \times 5 =$$

$$3 \times 8 =$$

$$3 \times 9 =$$

Use the patterns you know to find some answers in the 6 times table.

$$6 \times 1 =$$

$$6 \times 2 =$$

$$6 \times 4 =$$

$$6 \times 5 =$$

Use the patterns you know to find some answers in the 7 times table.

$$7 \times 0 =$$

$$7 \times 4 =$$

$$7 \times 7 =$$

You know the pattern for one of the numbers. Start with the other number and use the pattern.



Fill in the white boxes in this chart. Start by writing the square numbers in the circles.

		0	1	2	3	4	5	6	7	8	9	10	11
Always 0.	0												
Same as the number.	1												
Double the number!	2												
	3												
Double and double again.	4												
Half of 10 times the number.	5												
	6												
	7												
Double, double, double!	8												
Read your hands.	9												
Number to the 10s place, 0 in the 1s place.	10											0	
	11												

Not many boxes still covered.



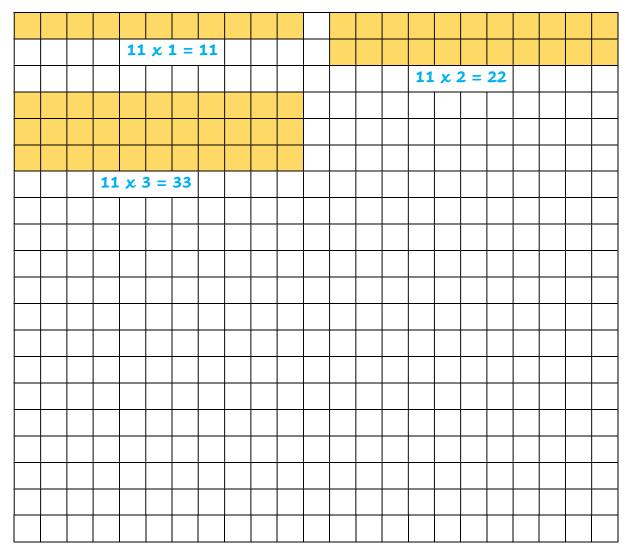
I wonder what's next?

Part 10 The 11 Times Table

See the Patterns

Multiples of 11: Use the graph paper to show some multiples of 11.

The first ones are done for you. Write a number sentence for each drawing. Your paper should show all these facts: 11 x 1, 11 x 2, 11 x 3, 11 x 4, 11 x 5, 11 x 6, 11 x 7, 11 x 8, 11 x 9, 11 x 10, and 11 x 11. (There is more graph paper at the end of this book.)



Skip count by 11.	Highlight the	multiples of 11.
		main pies of 110

		v		8	8			P	
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	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	124	124	125	126	127	128	129	130

Highlight the math sentences that are true. (11 are true.)

$$11 \times 3 = 33$$

$$11 \times 5 = 55$$

$$11 \times 9 = 100$$

$$11 \times 4 = 44$$

$$11 \times 8 = 88$$

$$11 \times 2 = 22$$

$$11 \times 6 = 66$$

$$11 \times 1 = 11$$

$$11 \times 7 = 77$$

$$11 \times 11 = 121$$

$$11 \times 0 = 0$$

Highlight the square numbers.

Show What You Know!

Match.

- a. 4 times a number number to the 10s place, 0 in the 1s place
- b. 2 times a number double the number
- c. 11 times a number double and double again
- d. 0 times a number read your hands
- e. 10 times a number half of 10 times the number
- f. 8 times a number always 0
- g. 1 times a number _____ double, double
- h. 5 times a number same as the number
- i. 9 times a number ____ for a 1-digit number, write the digit twice

Finish the number sentences.

$$9 \times 10 =$$
 $8 \times 10 =$ $5 \times 10 =$ $11 \times 10 =$

Lots of ways to find the answers!





You can choose the way that works for you!

Fill in the white boxes on this chart. Start by writing the square numbers in the circles. Then do the 11 times, then the rest.

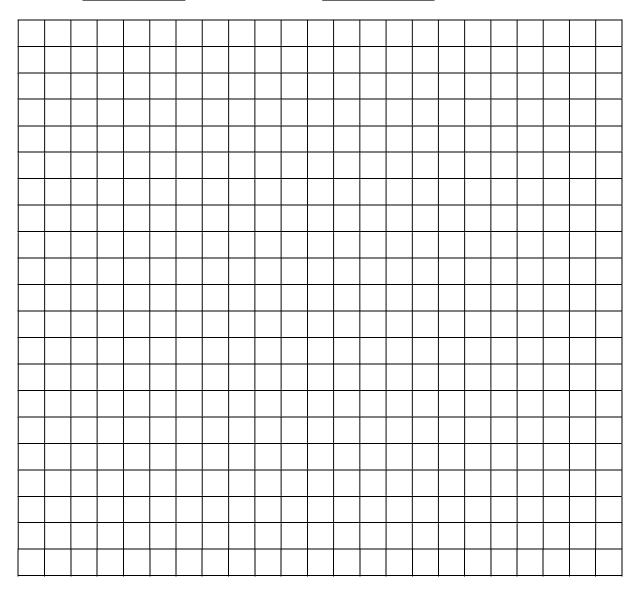
				1	<u> </u>								
		0	1	2	3	4	5	6	7	8	9	10	11
Always 0.	0												
Same as the number	1												
Double the number!	2												
	3												
Double and double again.	4												
Half of 10 times the number.	5												
	6												
	7												
Double, double, double!	8									\bigcirc			
Read your hands.	9												
Number to the 10s place, 0 in the 1s place.	10												
For a 1-digit number, write the number twice.	11												



Part 11 Left-overs

See the Patterns

Draw the shapes of these number sentences on the graph paper.



Show What You Know!

Here is a times table all filled in. Use it to answer the questions below.

	0	1	2	3	4	5	6	7	8	9	10	11
0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11
2	0	2	4	6	8	10	12	14	16	18	20	22
3	0	3	6	9	12	15	18	21	24	27	30	33
4	0	4	8	12	16	20	25	28	32	36	40	44
5	0	5	10	15	20	25	30	35	40	45	50	55
6	0	6	12	18	24	30	36	42	48	54	60	66
7	0	7	14	21	28	35	42	49	56	63	70	77
8	0	8	16	24	32	40	48	56	64	72	80	88
9	0	9	18	27	36	45	54	63	72	81	90	99
10	0	10	20	30	40	50	60	70	80	90	100	110
11	0	11	22	33	44	55	66	77	88	99	110	121

If you look for 0 on the ch	rt you will find it 23 times.	Why?
-----------------------------	-------------------------------	------

Most numbers show up twice on the chart, but some show up 4 times. These numbers are 6, 8, 10, 12, 18, 20, 30, and 40. Write 2 different number sentences for each number that shows up 4 times. The first set is done for you.

$$6 = 2 \times 3$$

$$6 = 1 \times 6$$

Write the square numbers.

$$1 \times 1 =$$
 $2 \times 2 =$

$$3 \times 3 =$$

$$4 \times 4 =$$
 $5 \times 5 =$

$$9 \times 9 =$$

$$10 \times 10 =$$
 $11 \times 11 =$

$$11 \times 11 =$$

When you multiply an odd number by an odd number, is the answer odd or even? Give 6 examples from the chart.

When you multiply an even even? Give	
When you multiply an even even? Give 6	number by an even number, is the answer odd or examples from the chart.
Match.	
a. 4 times a number?	number to the 10s place, 0 in the 1s place
b. 2 times a number?	double the number
c. 11 times a number?	double and double again
d. 0 times a number?	read your hands
e. 10 times a number?	half of 10 times the number
f. 8 times a number?	always 0
g. 1 times a number?	double, double
h. 5 times a number?	same as the number
i. 9 times a number?	for a 1-digit number, write the digit twice

Finish the number sentences.

$$9 \times 9 =$$

$$9 \times 4 =$$

$$8 \times 3 =$$

$$8 \times 7 =$$

$$4 \times 6 =$$

$$5 \times 5 =$$
 $5 \times 7 =$ $5 \times 6 =$

$$6 \times 7 =$$

$$6 \times 6 =$$

$$10 \times 0 =$$

$$10 \times 2 =$$

$$7 \times 7 =$$

$$3 \times 3 =$$

$$7 \times 7 =$$
 $10 \times 10 =$ $10 \times 10 =$

Fill in the boxes on this chart. Highlight the square numbers.

	0	1	2	3	4	5	6	7	8	9	10	11
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												

We can write the whole table. Easier than I thought it would be!



Did we have to learn anything by heart? Just 3 x 6 and 3 x 7.

Use this graph paper whenever you need it.

