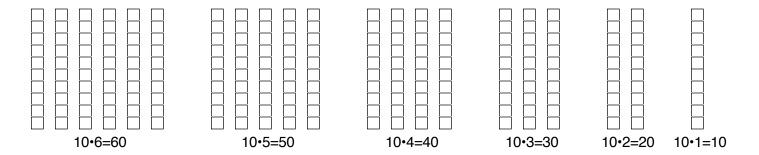
## Lesson 5 Multiply by $10, 10 \notin = 1$ Dime

## Sample Teacher Manual Page

When multiplying by ten encourage the student to look for patterns. Notice that whenever you multiply ten times any number the answer is that number plus a zero. That is because 10 is made up of a 1 digit and a 0 digit. So 4 times 10 is 4x1=4 and 4x0=0, or 40. To make sure the student has this concept, I like to ask, "What is banana times ten?" The answer is banana zero pronounced "banana-ty". The "ty" stands for ten. These are easy facts to learn and remember, but don't take them for granted. Make sure they are mastered using any of the techniques shown below.

On the skip counting sheets, there have been rectangles where the student wrote in the fact at the end of the line in the space with an underline. These can be put to the same use by adding the multiplication problem to the multiple of 10. Here are a few examples.

20	"ten counted two times equals twenty"		
20	ten counted two times equals twenty	or	10x2 = 20
30	"ten counted three times equals thirty"	or	10x3 = 30
40	"ten counted four times equals forty"	or	10x4 = 40



Another way to show this is on a number chart. Circling all of the 10 facts, or multiples of 10, reveals the pattern that corresponds to the blocks above.

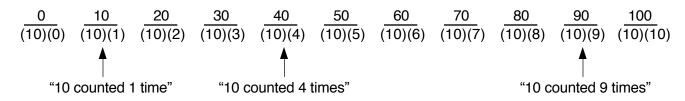
0	1	2	3	4	5	6	7	8	9
(10)	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
(30)	31	32	33	34	35	36	37	38	39
(40)	41	42	43	44	45	46	47	48	49
(50)	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
(70)	71	72	73	74	75	76	77	78	79
(80)	81	82	83	84	85	86	87	88	89
(90)	91	92	93	94	95	96	97	98	99
(100)	)								

Of course each fact can be built in the shape of a rectangle. Whenever illustrating with the blocks, also write it and say it as you build.

10 counted 5 times is the same as 50, or 10 times 5 equals 50, or 10 over and 5 up is 50. Student Text

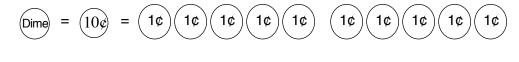
Page Counting by ten is the first step. After this is accomplished, say the factors slowly, then ask the student to say the product. For example, you say, "ten counted one time" or "ten times one" and the student says "ten". Continue by saying "ten times two" and the student says "twenty". (I often have them say twoty as well as twenty to show there is order in our words). Proceed through all the facts sequentially just like they learned to count by ten.

Here are the ten facts with the corresponding numbering.



_	_									
0x0	0x1	0x2	0x3	0x4	0x5	0x6	0x7	0x8	0x9	0x10
1x0	1x1	1x2	1x3	1x4	1x5	1x6	1x7	1x8	1x9	1x10
2x0	2x1	2x2	2x3	2x4	2x5	2x6	2x7	2x8	2x9	2x10
3x0	3x1	3x2	3x3	3x4	3x5	3x6	3x7	3x8	3x9	(3x10)
4x0	4x1	4x2	4x3	4x4	4x5	4x6	4x7	4x8	4x9	4x10
5x0	5x1	5x2	5x3	5x4	5x5	5x6	5x7	5x8	5x9	5x10
6x0	6x1	6x2	6x3	6x4	6x5	6x6	6x7	6x8	6x9	6x10
7x0	7x1	7x2	7x3	7x4	7x5	7x6	7x7	7x8	7x9	7x10
8x0	8x1	8x2	8x3	8x4	8x5	8x6	8x7	8x8	8x9	8x10
9x0	9x1	9x2	9x3	9x4	9x5	9x6	9x7	9x8	9x9	9x10
10x0	∫10x1 ∫	10x2	10x3	10x4	10x5	10x6	10x7	10x8	10x9	10x10
$\bigcirc$	$\smile$	$\smile$								
										Т
										'

Money  $10\phi = 1$  Dime A good place to apply math is with money. We've learned that 10¢ is the same as 1 dime, so we can ask how many pennies in 6 dimes to apply 6 times 10. The answer is 60¢. Consider the example.



 $10^{\circ}$ 

 $10^{\circ}$ 

10d

10q

Example

How many pennies in 6 dimes?

Sample

 $6 \cdot 10c = 60c$ 

Find the answer by multiplying.

1)	10 x 0 =	2)	5 x 10 =	3)	10 x 2 =	4)	6 x 10 =
5)	(10)(10) =	6)	(10)(3) =	7)	10 • 9 =	8)	10 • 7 =
9)	10 _x 2		10 _x 5				
13)	10 x 7 = 7 x 10 =		4 x 10 = 10 x 4 =			,	10 x 3 = 3 x 10 =

Color all the boxes that have a number you would say when skip counting by 10. Notice the pattern.

17)	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

Sample Student Text Page

18) How many pennies in four dimes? (10¢) (10¢) (10¢) (10¢)

19) Ten counted nine times equals \_\_\_\_\_\_.

20) Ten cars went by the house every hour. How many cars went by in 6 hours?\_\_\_\_\_

Lesson Practice 5B

Fin	d the answer by multip	olying.					
1)	10 x 8 =	2)	1 x 10 =	3)	10 x 9 =	4)	0 x 10 =
5)	(10)(5) =	6)	(10)(4) =	7)	10 • 6 =	8)	10 • 10 = <u></u>
9)	10 _x 8				10 _x 2		
13)	10 x 5 = 5 x 10 =	-	8 x 10 = 10 x 8 =	-			10 x 9 = 9 x 10 =

17) Skip count and write the missing numbers, then fill in the missing factors under the lines.

0	10		30						90	
(10)	(0) (10)(	) (10)(2)	(10)(	) (10)(4)	(10)(	) (10)(6)	(10)(	) (10)(8)	(10)(	) (10)(10)
18)	How man	y pennies ir	n seven	dimes?		(10c)	$\widehat{10}\phi$ $(10\phi)$	e (10e) (10e)	(10c) $(10c)$	
·									$\bigcirc$	9
							Sa	mple		
						S		nt Text		
19)	Ten count	ted six times	equals			0		age		

20) There were ten math problems on each of five pages. How many problems were there in all?\_\_\_\_\_

Find the answer by multiplying.

1)	3 x 10 =	2)	8 x 10 =	3)	10 x 1 =	4)	2 x 10 =
5)	(10)(9) =	6)	(7)(10) =	7)	10 • 5 =	8)	6 • 10 =
9)	10 _x 0	-			10 x 10		10 _x 3
13)	10 x 1 = 1 x 10 =		10 x 4 = 4 x 10 =		10 x 2 = 2 x 10 =		7 x 10 = 10 x 7 =

Color all the boxes that have a number you would say when skip counting by 10. What kind of pattern do you see?

17)

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

Sample Student Text Page

10) I low many permies, or cents, in live dimes?	18)	How many pennies, or cents, in five dimes?	
--	-----	--	--

(10c) (10c) (10c) (10c) (10c)

19) Ten counted three times equals \_\_\_\_\_.

20) The professor paid two ten dollar bills for his new book. How much did the book cost? \_\_\_\_\_

Fin	d the answer by multi	plying.	Stude	mple int Text age		Systen	natic Review 5D
1)	10 • 5 =	2)	7 x 10 =	_ 3)	10 • 2 =	4) (1	0)(10) =
5)	2 _x 5		10 x 5		6 _x 2		7 x 2
9)	1 _ <u>x 3</u>		9 x 2	11)	10 <u>x 8</u>	12)	
13)	9 x 2 = 2 x 9 =	-	4 x 2 = 2 x 4 =	-	10 x 3 = 3 x 10 =		5 x 2 = 2 x 5 =

Quick Review

These two-digit addition and subtraction problems can be done without regrouping. Just add or subtract the units and the tens. The first one is done for you.

Add or subtract.

17)	21	18) 4 3	19) 28	20) 8 9
	+ 32	+ 43	- 16	- 51
	53			

If you do not have enough room to work a word problem, use the empty page opposite. Don't forget to write your answer in the blank after the word problem.

- 21) Jessica slept 7 hours a day for the last 10 days. How much sleep did she get in 10 days?\_\_\_\_\_
- 22) Jessica's little sister Julie still takes naps, so she got 20 more hours of sleep than Jessica during the last ten days. How much sleep did Julie get during that time? (You will need to use your answer from #21.)\_\_\_\_\_

Find the answer by multiplying.

1)	10 • 8 =	2)	6 x 10 =	3)	10 • 9 =	4)	(10)(0) =
5)	5 _x 1		6 x 2		8 _x 1	8)	10 x 5
9)	2 x 2		2 x 5		9 x 1 = 1 x 9 =	12)	3 x 10 = 10 x 3 =
Re	ewrite using place value	nota	tion.				
13)	389 = +		+	14)	72 = +		
Ad	d or subtract.						
15)	4 6 + 2 2		51 + 12	17)	37 - 23	18)	94 - 43
19)	How many cents are t	here	in eight dimes?	_	Sample Student Te Page	ext	

20) There are four people in our family. How many fingers do we have in all?\_\_\_\_\_

21) Grandma made 6 cherry pies and 4 apple pies. Aunt Mona cut each pie into 10 pieces. How many pieces of pie were there when she was done?\_\_\_\_\_

22) Noah bought 9 quarts of milk. How many pints of milk does he have?\_\_\_\_\_

Systematic Review 5F

Find the answer by multiplying.

1)	4 • 1 =	2) 2 x 10 =	3) 10 • 3 =	4) (10)(9) =
5)	6 _x 2	6) 2 <u>x 8</u>	7) 10 <u>x 7</u>	8) 10 _ <u>x 1</u>
9)	3 x 2	10) 4 <u>x 2</u>	11) 1 <u>x 6</u>	12) 9 <u>x 0</u>
Re	ewrite using place value	notation.		
13)	164 = +	+	14) 58 = +	
Ad	d or subtract.			
15)	52 - 20	16) 6 4 <u>+ 1 3</u>	17) 35 <u>+ 34</u>	18) 1 4 <u>- 1 2</u>
19)	What is five counted t	en times?	Sample Student Text Page	

20) How many cents does Shane have if he has nine dimes?\_\_\_\_\_

21) Max has \$5 dollars and Wayne has ten times as much money as Max. How many dollars doesWayne have? How much money do Max and Wayne have altogether?

22) Karyn filled 8 quart jars with jam. How many pints of jam did she make? \_\_\_\_\_

Find the	e answer by multiply	Test	mple Booklet age	Test 5
1) 2 x	: 10 = 2	) 10 x 9 =	3) 3 x 10 =	4) 10 x 7 =
5) (6)	(10) = 6	i) (10)(1) =	7) 4 • 10 =	8) 10 • 5 =
_x	8	0) 5 <u>x 2</u>	11) 1 <u>x 3</u>	12) 8 <u>x 2</u>
Add or	subtract.			
,		4) 55 + 42	15) 18 <u>- 1</u>	16) 6 0 + 1 7

Rewrite using place value notation.

17) 194 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

18) Jeremy has 7 dimes. How many cents does he have?

19) Christa bought 10 quarts of milk. How many pints did she buy? \_\_\_\_\_ Her son and his friends drank 10 pints. How many pints were left over? \_\_\_\_\_

20) Jason jogged 3 miles a day for 10 days. How many miles did he jog altogether?

80 60 90 90 12 12 12 12 12 12 12 12 12 12
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50 70 100 112 12 13 14 14 14 12 12 12 12 10 10 10 10 10 10 10 10 10 10 10 10 10
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5B 1) 80 2) 10 3) 90 4) 0 5) 50 6) 40 7) 60 8) 100 9) 80 10) 70 11) 20 13) 50 10) 70 14) 80 14) 80 13) 50 10) 70 10) 70 10
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