Practice Multiplication Facts with Scaled Number Lines





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Thank you again. All the best,

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Isabelle

Isabelle Hoag M.Ed. Director of Education UnCommon-Core.com

Introducing Scaled Number Lines; Teacher Tips

These ideas will help students make sense of scaled number lines.

Start with the Times Two and Times One number lines. Then repeat these activities with other pairs of scaled number lines.

Invite students to do a choral reading of the text on both pages of their Making Sense handouts. Ask them to explain the text in their own words.

> Ensure that students connect the every day language of `twice' and `double' with multiplying by two.

Have students measure the distances between numbers on both of the scaled number lines.

Which one is bigger? (Times Two) How much bigger? (Twice as big) Challenge them to highlight the sentence on their paper that explains this relationship.





Multiply Times Two

10 x 2		11 × 2		12×2	
		I		I	
20 	21 	22	23 	24 	5
					+

7. 0x3=⊅

8. 1x3=3

Encourage learners to use what they know about place value when they need to recall multiplication facts:

> $2 \times 1 = 2$ $2 \times 10 = 20$ $2 \times 100 = 200$ and so on.

Understanding place value will also help students imagine other parts of the scaled number lines:

> 2 x 10 = 20 2 x 11 = 22 2 x 12 = 24 and so on.

When students are comfortable comparing number lines of different sizes, have them highlight numbers opposite each other. Then they can use the highlighted numbers to write multiplication facts.

Art of Multiplication: Scaling Number Lines

Make Sense of Scaled Number Lines: Times Two

name

There is twice as much distance between numbers on the Times Two number line as there is on the Times One number line.

Line up the number lines so that the zeros match. Notice how each number on the Times Two number line is now lined up with its double on the Times One number line.

For example, seven times two is fourteen. Also, the number 7 on the Times Two number line is directly opposite 14 (when the zeros on each line are matched up).





Make Sense of Scaled Number Lines: Times Two

Numbers on the Times Two line are opposite every other number on the Times One line. The numbers on the Times One number line are double the amount of their matching numbers on the Times Two line.

Use the number lines below if you need help answering the math questions on this page.

⁰ Times Two		2	3			4		5		6		7		8		9
Times One		Ι		I		Ι		I		I		Ι		Ι		I
	2 3	4	5	6	7	8	9	10		12	13	14	15	16 	17	18
1. Two tim	nes four	r is					5	. 4x3	2=			9.	2x8	8=		
2. Double	five is						6	. 2x3	2=			10). 2x	6=		
3. What n	umber	is tw	ice tł	nree?			7. 0×2= 11. 5×2						2=			
4. What is	s twice	sevei	1?				8	. 2×9	9=			12	. 1×2	2=		

Make Sense of Scaled Number Lines: Times Three

name



There is three times as much distance between numbers on the Times Three number line as there is on the Times One number line.

Line up the number lines so that the zeros match. Notice how each number on the Times Three number line is now lined up with its triple on the Times One number line.

For example, Seven times three is twenty-one. Also, the number 7 on the Times Three number line is directly opposite 21 (when the zeros on each line are matched up).



Make Sense of Scaled Number Lines: Times Three

name

Numbers on the Times Three number line are opposite every third number on the Times One line. The numbers on the Times One number line are triple the amount of their matching numbers on the Times Three line.

Use the number lines below if you need help answering the math questions on this page.

⁰ Times Three 1 2	3	4	5	6
Times One	Ι	I	I	I
	8 9 10 11		4 15 16 17	18
1. Three times four is	5. 4×3=		9. 3×3=	
2. Triple five is	6. 6×3=		10. 3×6=	
3. What number is thrice two?	7. 0×3=		11. 5×3=	
4. What number is 3+3+3?	8. 1×3=		12. 3×4=	

Cut and Paste a Pair of Scaled Number Lines

)x2	1×2		2×2		3x2		4x2		5x2		6x2		7x2		8×2	2	9x2	
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1
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rt of Multip	v Times	Thr	Number	Lines										© 202	24 UnCo	0mmon-0	Core.com 	

Page 2: Seamlessly overlap the number lines at 19.

Times Two:



			7x3			8x3			9x3			10 x	3			11×3			12 ×	(3		3x13	
1	9 2	20	21	22	23	24	25	26	27	28	29	30	31	3	2	33	34	35	36	37	38	39	
-					1		1	1		1		I		. J						l			

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All the best!

Isabelle

Isabelle Hoag M. Ed.



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