
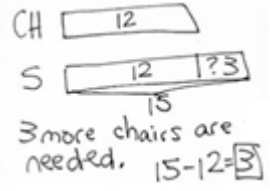
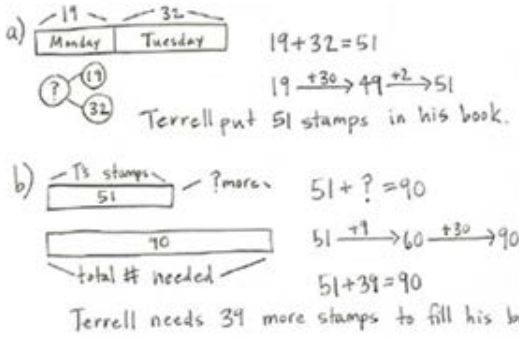
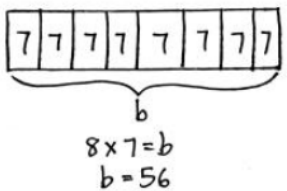
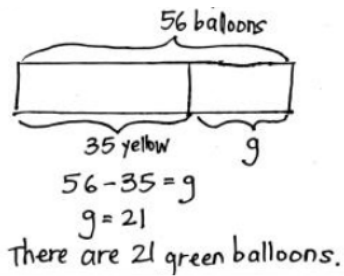
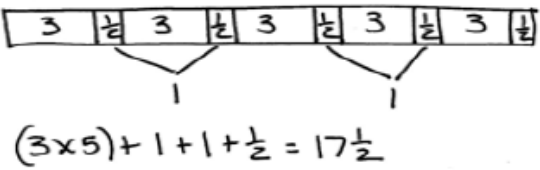
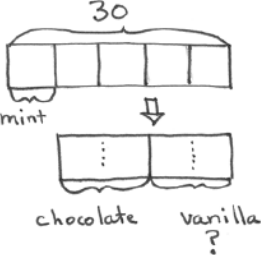
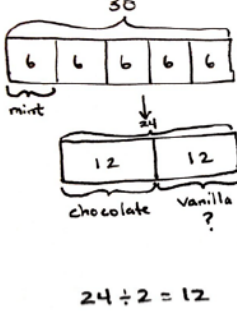


# TAPE DIAGRAM PROGRESSION

Kindergarten	$1 + 4$ 
1 <sup>st</sup> Grade	<p>There are 12 chairs at the lunch table and 15 students. How many more chairs are needed so every student has a chair?</p> <div style="text-align: right;">  </div>
2 <sup>nd</sup> Grade	<p>Terrell put 19 stamps in his book on Monday. On Tuesday, he put in 32 stamps.</p> <p>a. How many stamps did Terrell put in his book on Monday and Tuesday?</p> <p>b. If Terrell's book holds 90 stamps, how many more stamps does he need to fill his book?</p> <div style="text-align: right;">  </div>
3 <sup>rd</sup> Grade	<p>There are 8 bags of yellow and green balloons. Each bag contains 7 balloons. If there are 35 yellow balloons, how many green balloons are there?</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div>
4 <sup>th</sup> Grade	<p>Robin rides for <math>3\frac{1}{2}</math> miles round-trip to get to and from school. How many miles would Robin ride in 5 days?</p> <div style="text-align: center;">  </div>
5 <sup>th</sup> Grade	<p>Joakim is icing 30 cupcakes. He spreads mint icing on <math>\frac{1}{5}</math> of the cupcakes and chocolate on <math>\frac{1}{2}</math> of the remaining cupcakes. The rest will get vanilla icing. How many cupcakes have vanilla icing?</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div>

6<sup>th</sup> Grade

Wells College in Aurora, New York was previously an all-girls college. In 2005, the college began to allow boys to enroll. By 2012, the ratio of boys to girls was 3 to 7. If there were 200 more girls than boys in 2012, how many boys were enrolled that year? Use a table, graph, or tape diagram to justify your answer.

Girls 

50	50	50	50	50	50	50
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Boys 

50	50	50
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200

150 boys were enrolled in 2012.

7<sup>th</sup> Grade

Mark bought an electronic tablet on sale for  $\frac{1}{4}$  off its original price of \$825.00. He also wanted to use a coupon for a  $\frac{1}{5}$  off the sales price. Before taxes, how much did Mark pay for the tablet? (67)

\$825

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\$618.75    \$206.25

\$618.75

--	--	--	--

\$495    123.75

$825 \div 4 = 206.25$

$206.25 (3) = 618.75$

$618.75 \div 5 = 123.75$

$618.75 - 123.75 = \underline{\underline{495}}$

Mark paid \$495 for the tablet.

8<sup>th</sup> Grade

Some friends went to the local movie theater and brought four large buckets of popcorn and six boxes of candy. The total for the snacks was \$46.50. The last time you were at the theater, you bought a large bucket of popcorn and a box of candy, and the total was \$9.75. How much would 2 large buckets of popcorn and 4 boxes of candy cost?

\$46.50

P	P	P	P	C	C	C	C	C
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\$39    \$7.50

9.75

P	C
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\$6    \$3.75

$9.75 \times 4 = \$39$

$2P + 4C =$

$2(6) + 4(3.75) = \underline{\underline{\$27}}$

$4P + 6C = 46.50$

$-4(P + C = 9.75)$

$4P + 6C = 46.50$

$-4P - 4C = 39.00$

$2C = 7.50 \quad C = 3.75$

Two large buckets of popcorn and four boxes of candy cost \$27.