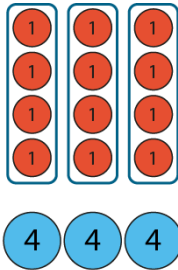
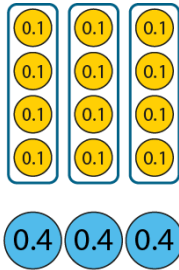
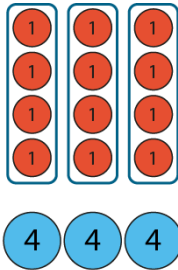
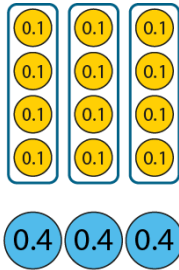
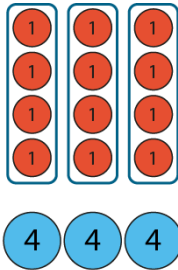
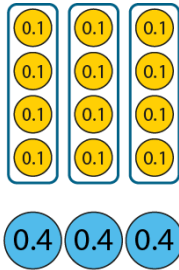
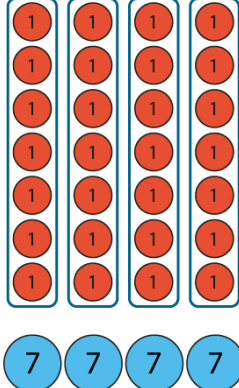
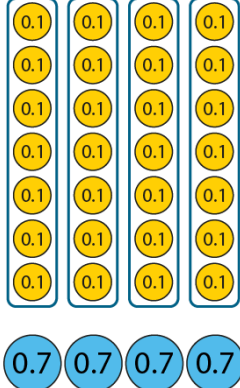
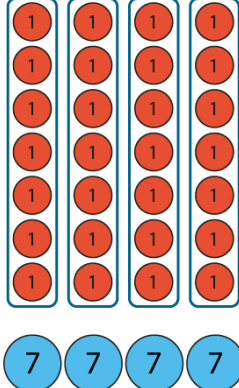
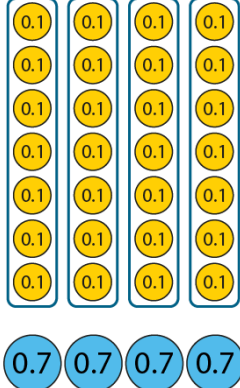
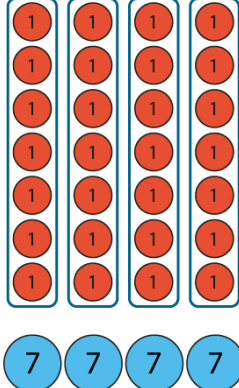
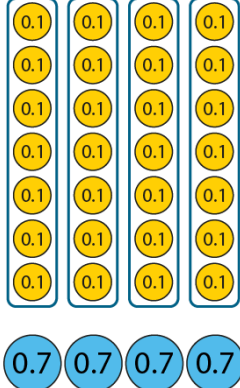


<p>Take a moment to explore how pairs of related facts from the 4 and 0.4 times tables could be represented with manipulatives or pictures, sharing suggestions as a class. Then focus on array representations, drawing attention to how the same layout can be used to represent two related facts by changing the place value of the counters. Similarly, compare the facts represented with 4-value counters and with 0.4-value counters.</p> <p>Use the following stem sentence: ' ___ times ___ ones is equal to ___ ones, so ___ times ___ tenths is equal to ___ tenths.'</p>	<table border="1"> <tr> <td data-bbox="807 342 1166 651">  </td><td data-bbox="1173 342 1536 651">  </td></tr> <tr> <td data-bbox="807 660 1166 772"> $3 \times 4 = 12$ $3 \times 4 \text{ ones} = 12 \text{ ones}$ </td><td data-bbox="1173 660 1536 772"> $3 \times 0.4 = 1.2$ $3 \times 4 \text{ tenths} = 12 \text{ tenths}$ </td></tr> </table> <ul style="list-style-type: none"> 'Three times four ones is equal to twelve ones, so three times four tenths is equal to twelve tenths.' 			$3 \times 4 = 12$ $3 \times 4 \text{ ones} = 12 \text{ ones}$	$3 \times 0.4 = 1.2$ $3 \times 4 \text{ tenths} = 12 \text{ tenths}$
					
$3 \times 4 = 12$ $3 \times 4 \text{ ones} = 12 \text{ ones}$	$3 \times 0.4 = 1.2$ $3 \times 4 \text{ tenths} = 12 \text{ tenths}$				
<p>Repeat steps 1:2–1:4 with other decimal times tables. Continue to use the stem sentence from step 1:4 to draw attention to unitising in ones vs unitising in tenths.</p> <p>Vary the order in which the factors are presented (both <i>whole number</i> \times <i>decimal fraction</i> and <i>decimal fraction</i> \times <i>whole number</i> calculations).</p>	<p>Example 1:</p> <table border="1"> <tr> <td data-bbox="807 1043 1166 1464">  </td><td data-bbox="1173 1043 1536 1464">  </td></tr> <tr> <td data-bbox="807 1473 1166 1585"> $4 \times 7 = 28$ $4 \times 7 \text{ ones} = 28 \text{ ones}$ </td><td data-bbox="1173 1473 1536 1585"> $4 \times 0.7 = 2.8$ $4 \times 7 \text{ tenths} = 28 \text{ tenths}$ </td></tr> </table> <ul style="list-style-type: none"> 'Four times seven ones is equal to twenty-eight ones, so four times seven tenths is equal to twenty-eight tenths.' 			$4 \times 7 = 28$ $4 \times 7 \text{ ones} = 28 \text{ ones}$	$4 \times 0.7 = 2.8$ $4 \times 7 \text{ tenths} = 28 \text{ tenths}$
					
$4 \times 7 = 28$ $4 \times 7 \text{ ones} = 28 \text{ ones}$	$4 \times 0.7 = 2.8$ $4 \times 7 \text{ tenths} = 28 \text{ tenths}$				

Extracted from NCETM Mastery Professional Development Materials *Multiplication and Division*

2.19 Calculation: \times/\div decimal fractions by whole numbers

https://www.ncetm.org.uk/files/108930063/ncetm_spine2_segment19_y5.pdf

Part of article <https://www.ncetm.org.uk/resources/53991>