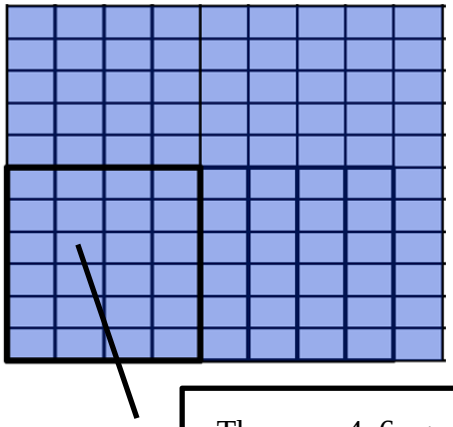
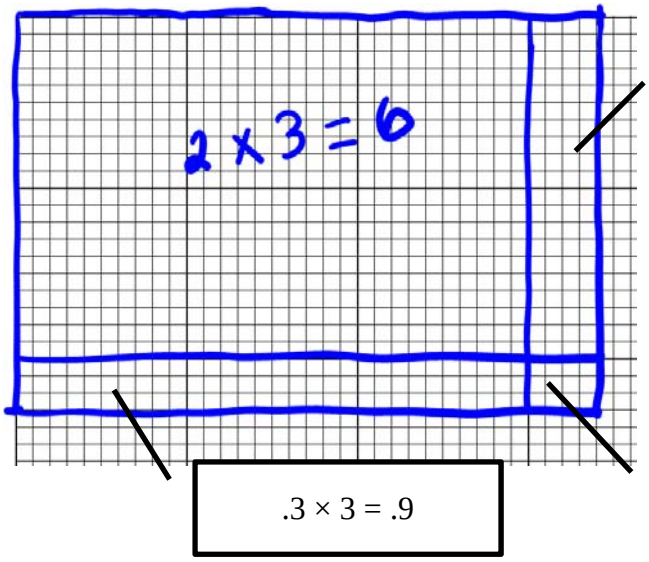
1. Draw an area diagram for the product: $2\frac{1}{4}\times 1\frac{5}{6}$. Show and explain how to use the diagram to find the product using a third-grade (number of unit fractions) approach.



There are 9 × 11=99 parts in the rectangle, so the total area = $2\frac{1}{4}\times 1\frac{5}{6}=\frac{99}{24}=\frac{33}{8}=4\frac{1}{8}units^2$

There are 4x6 equal parts in 1 square unit, so each part has size 1/24 square units

2. Draw an area diagram for the product 2.3 × 3.4 on a provided grid. Show how to use the diagram to find the product using a distributive law approach.



2 × .4 = .8

.3 × 3 = .9

.3 × .4 = .12

1
6
.8
.9
.12
7.82

2.3 x 3.4
= 7.82

3. Convert the decimal 4.13 into a single fraction if you start with a verbal interpretation “4 and 1 tenth and 3 hundredths”.

$$4+\frac{1}{10}+\frac{3}{100}=4+\frac{10}{100}+\frac{3}{100}=4\frac{13}{100}=\frac{413}{100}$$