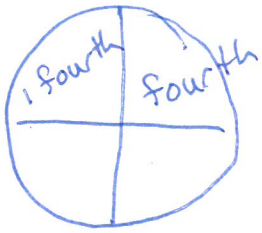
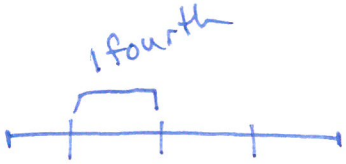
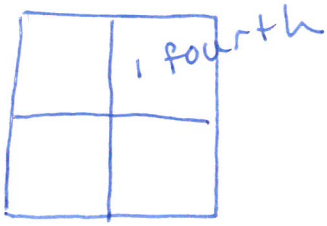
CCSS.MATH.CONTENT.3.NF.A.1

Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.

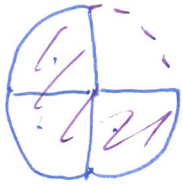
To show a $\frac{3}{4}$ of a whole unit, we start with a whole unit, and split it to make 4 equal parts. Then each part has size $\frac{1}{4}$:



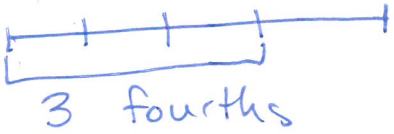




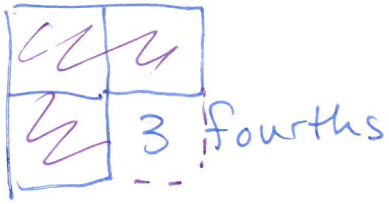
Next we take 3 parts, each of which are size $\frac{1}{4}$:



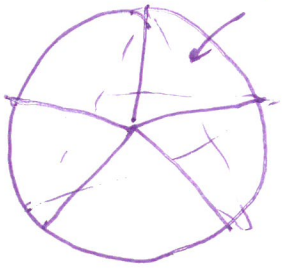
3 fourths

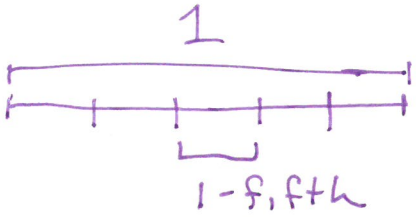


3 fourths



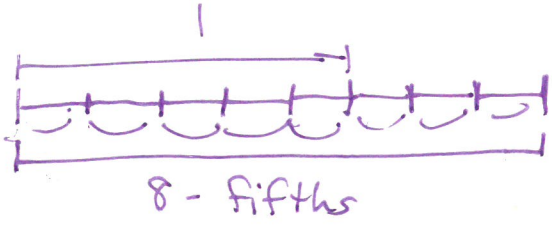
To show a $\frac{8}{5}$ of a whole unit, we start with a whole unit, and split it to make 5 equal parts. Then each part has size $\frac{1}{5}$:





Next we take 8 parts, each of which are size $\frac{1}{5}$:

8 fifths



★ Split a whole into more parts → parts are smaller

$\frac{3}{8} > \frac{3}{10}$ → same number of parts

→ eighths are bigger than tenths

(split in fewer) (split in more parts)

same numerator

$\frac{5}{8} < \frac{6}{8}$ → $\frac{6}{8}$ has one more eighth

→ same size parts

same denominator

$\frac{7}{8} > \frac{6}{7}$ $\frac{7}{8}$ is closer to one:

missing $\frac{1}{8}$ smaller missing piece

missing $\frac{1}{7}$

residual

$\frac{3}{5} > \frac{4}{9}$

$\frac{3}{5}$ → more than $\frac{1}{2}$

$\frac{4}{9}$ → less than $\frac{1}{2}$

transitive