

Equivalent Fractions on Number Lines

**DIGITAL
MATCHING**

**15 PowerPoint
& Google
Slides**



4F11-N

Description of Slides

Slides 1-3: On each slide, students sort 12 cards into three matching groups of four cards each. There are 36 unique card images in all.

Slides 4-9: Students view five cards and choose one card that matches a sixth card. The images are the same as on earlier slides.

Slides 10-15: Students view six cards and choose two cards that match each other. These are more challenging than Slides 4-9.

Slides are independent, so assign as many as you want.

HOW TO USE

- **Distance Learning.** The onscreen cards are an alternative to printable math cards. (See the related resource with the same title and other similar resources for goal code 4F11 followed by U or N.)
- **PowerPoint.** Students can sort and match various card images on the screen. See the file 4F11N_Matching_15p.ppt. A second PPT file has the cards already matched. See the file 4F11N_Matching_Ans_15p.ppt. A printable answer key for reference is also available in this PDF.
- **Google Slides.** Open your Google Drive, choose NEW and upload the PPT files. These are compatible with Slides files and can be assigned to students. Save your original PowerPoint files in case you need to restore them.
- **Recording Sheet.** When students finish the onscreen matching activity, you may want to assign a recording sheet. See the included sheet with an answer key.
- **Follow-Up Games.** The printable cards, available separately, can be used to play four fun, engaging games. These are great for a tutor, parent, or aide to play with one student or with a small group. Multiple variations provide review throughout the year.

About the Author & Illustrator

Angie Seltzer is a mathematics curriculum specialist who designs and develops time-saving products for teachers. She holds a master's degree in mathematics education from The Ohio State University.

Angie has more than 30 years of professional publishing experience as an editor, writer, and/or designer of math textbooks and supplements including assessments. She also has more than 10 years of math tutoring experience.

Digital Matching: Equivalent Fractions on Number Lines 4F11-N (Published 03/02/2021)

Copyright © K8MathSense, Dayton, Ohio. Written and Illustrated by Angie Seltzer. All Rights Reserved. The original purchaser has permission to print pages or post digital versions of this document for use in only one home or by one class of students. Further distribution of any portion of the printed or electronic document or electronic posting of the file on any storage or retrieval system is prohibited without written permission from the publisher.

About Card Set 4F11-N

Mathematics Content

These cards help students understand equivalent fractions as locations or lengths on a number line divided into equal parts.

- Each “star” card shows a fraction in simplest form.
- The “circle” and “square” cards show each fraction on the number line as a dot or as the length of a bar that starts at 0. Along the lower edge of the number line, the number of increments is the same as the denominator of the fraction on the star card. On most cards, the top edge of the number line has twice as many increments as the lower edge.
- The “triangle” cards show equivalent fractions that can be identified by counting increments along the top edge of the number line.

Meaning of Set Code 4F11-N

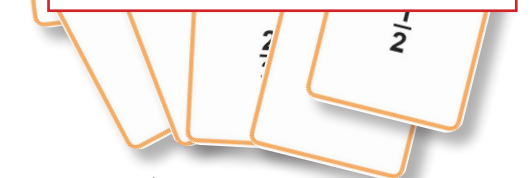
The code stands for Grade 4, Fractions, Cluster 1, Goal 1 in the Grade 4 goals checklist by Angie Seltzer. The N stands for *number line*.

Making Generalizations

As students use the cards during games, they will improve their mental math and modeling skills. This card set will also help students make generalizations such as the following.

- When determining a fraction to name a length on a number line, the increments must have equal lengths.
- You can show two equivalent fractions on a number line by shading parts for one fraction, dividing each segment into two parts, and finally identifying the second fraction.
- A fraction of the form $\frac{a}{b}$ is equivalent to $\frac{n \times a}{n \times b}$.

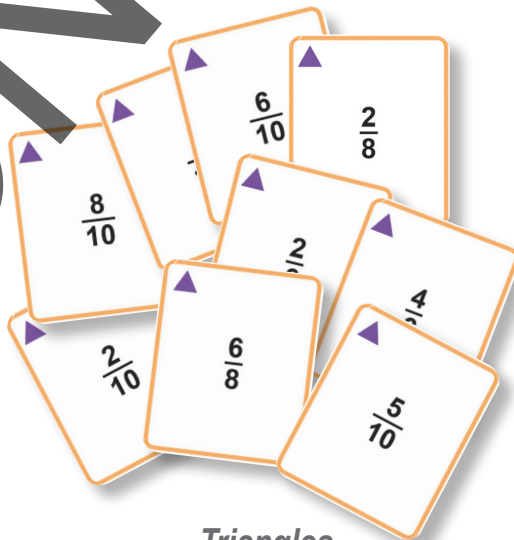
The same 36 cards shown on the digital slides are available separately as a set of printable cards with game instructions.



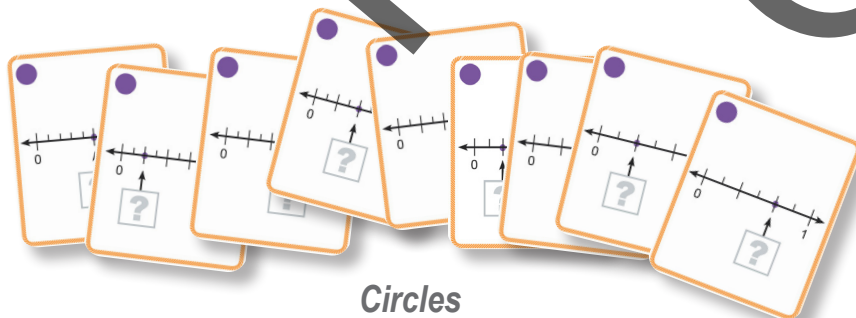
Stars



Squares



Triangles



Circles

Equivalent Fractions on Number Lines

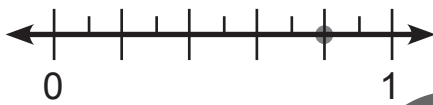
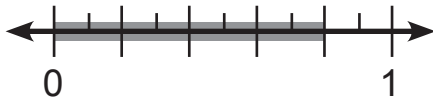
Name _____

Instructions: Show the fraction as a length and as a location. Then write an equivalent fraction.

Date _____

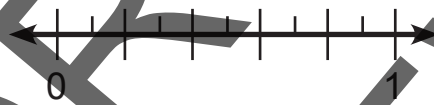
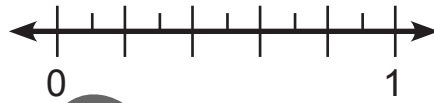
Sample:

$$\frac{4}{5} = \frac{8}{10}$$



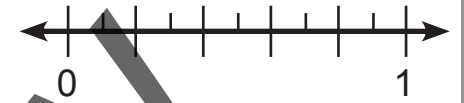
1

$$\frac{1}{5}$$



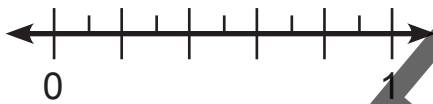
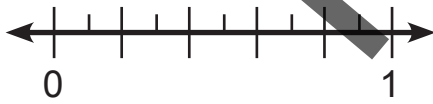
2

$$\frac{2}{5}$$



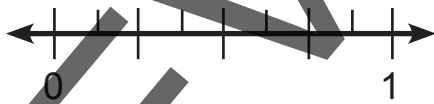
3

$$\frac{3}{5}$$



4

$$\frac{1}{4}$$



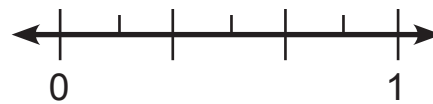
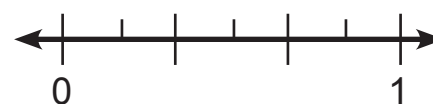
5

$$\frac{3}{4}$$



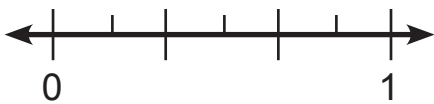
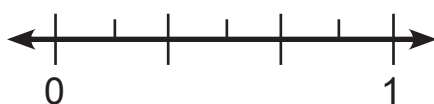
6

$$\frac{1}{3}$$



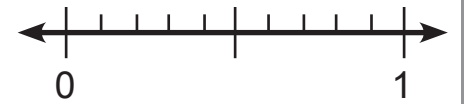
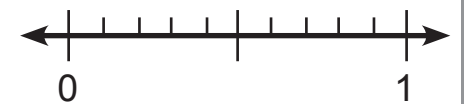
7

$$\frac{2}{3}$$



8

$$\frac{1}{2}$$



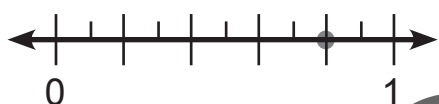
Equivalent Fractions on Number Lines

ANSWER KEY

Instructions: Show the fraction as a length and as a location. Then write an equivalent fraction.

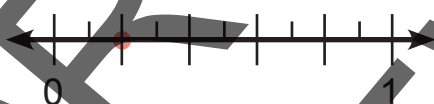
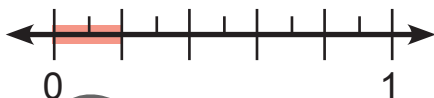
Sample:

$$\frac{4}{5} = \frac{8}{10}$$



1

$$\frac{1}{5} = \frac{2}{10}$$



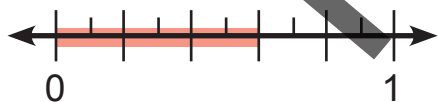
2

$$\frac{2}{5} = \frac{4}{10}$$



3

$$\frac{3}{5} = \frac{6}{10}$$



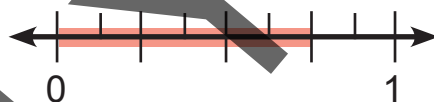
4

$$\frac{1}{4} = \frac{2}{8}$$



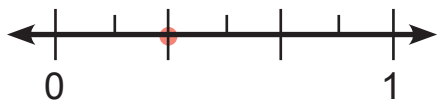
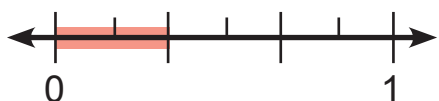
5

$$\frac{3}{4} = \frac{6}{8}$$



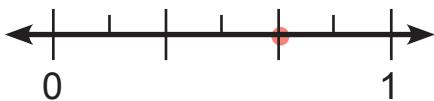
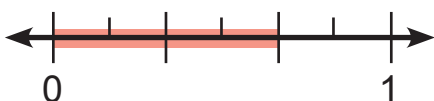
6

$$\frac{1}{3} = \frac{2}{6}$$



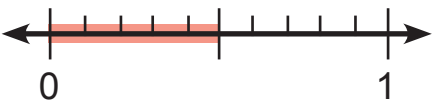
7

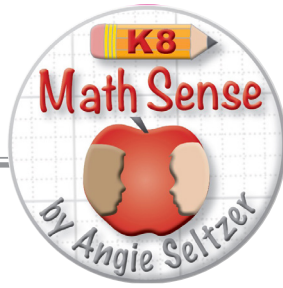
$$\frac{2}{3} = \frac{4}{6}$$



8

$$\frac{1}{2} = \frac{5}{10}$$





Terms of Use

Thank you for downloading a printable *K8 Math Sense (K8MS)* resource and/or the related digital files! Your purchase gives you the right to use the resources in certain ways, but the copyright ownership is not transferred to you. Resources may occasionally be offered by K8MS as freebies, and the same terms of use apply to both purchased and free resources.

What a purchaser is allowed to do...

- Copy the digital file to your computer or digital devices for personal use as an educator.
- Make photocopies for students in your classroom, for your own children, and for students you tutor.
- Post printable resources within your classroom or tutoring space.
- Transfer digital resources to the folders for your students as long as access is limited to those students only.
- Share a cover image for a resource in blog posts, at workshops, or at other professional development venues provided credit is given along with appropriate links back to the resource. Provide links to www.k8mathsense.com or to the *K8 Math Sense* store at an online marketplace that is legally distributing *K8 Math Sense* resources.
- Refer teachers, parents, or other people to the *K8 Math Sense* store to obtain the resources legally.

What a purchaser is NOT allowed to do...

- Claim ownership or authorship of *K8 Math Sense* resources.
- Remove the copyright line from printed resources.
- Share or exchange any portion of the digital or printed files with other teachers, with parents, or with students who are not in the purchaser's class.
- Resell your *K8 Math Sense* purchase or offer it as a giveaway.
- Post the digital files on any non-secure website anywhere on the internet including, but not limited to, sharing sites, news lists, or shared databases.

Thank you for respecting copyright laws and the hard work of authors. Please abide by the Terms of Use. If you have questions, please direct them to angieseltzer@gmail.com. Thanks again for choosing a *K8 Math Sense* resource.

Angie Seltzer

Click to view *K8 Math Sense* on Facebook or Pinterest.

