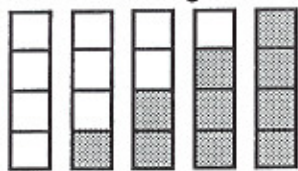


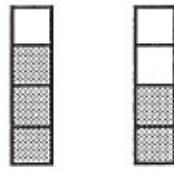
Problem solving: comparing, ordering and estimating fractions

These fraction bars are ordered from least to greatest.



$$\frac{0}{4} \quad \frac{1}{4} \quad \frac{2}{4} \quad \frac{3}{4} \quad \frac{4}{4} \quad (\text{or } 1)$$

>, < or =?



$$\frac{3}{4} > \frac{2}{4}$$

Pattern: To order or compare fractions with the same denominator, order or compare the numerators.

These fractions are equivalent to 1.



These fractions are close to 1.



How can we tell if a fraction is close to 1?

These fractions are equivalent to zero.



These fractions are close to 0.



How can we tell if a fraction is close to 0?

Order from least to greatest:

1. $\frac{3}{5}$ $\frac{1}{5}$ $\frac{2}{5}$ $\frac{5}{5}$ $\frac{0}{5}$

2. $\frac{7}{6}$ $\frac{4}{6}$ $\frac{1}{6}$ $\frac{6}{6}$ $\frac{3}{6}$

3. $\frac{7}{8}$ $\frac{4}{8}$ $\frac{9}{8}$ $\frac{8}{8}$ $\frac{5}{8}$

4. $\frac{3}{4}$ $\frac{6}{4}$ 1 $\frac{5}{4}$ $\frac{7}{4}$

>, <, = ?

5. $\frac{2}{3}$ _____ $\frac{1}{3}$

6. $\frac{11}{12}$ _____ $\frac{12}{12}$

7. $\frac{5}{10}$ _____ 1

8. $\frac{8}{4}$ _____ 2

9. $\frac{2}{5}$ _____ $\frac{7}{5}$

10. $\frac{1}{12}$ _____ 0

11. $\frac{9}{6}$ _____ $\frac{7}{6}$

12. 1 _____ $\frac{5}{8}$

Is each fraction closer to 0 or 1?

13. $\frac{11}{12}$ _____

14. $\frac{3}{4}$ _____

15. $\frac{2}{5}$ _____

16. $\frac{5}{10}$ _____

17. $\frac{7}{10}$ _____

18. $\frac{2}{3}$ _____



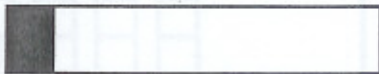






19. $\frac{2}{12}$ _____

20. $\frac{3}{6}$ _____

What Did the Mermaid Do on Saturday Night?

For each exercise, circle the best choice. Write the letter next to your answer in the box containing the exercise number.

I. Circle the fraction that tells about how much of each bar is shaded.

1.  2.  3. 
- (L) $\frac{1}{10}$ (T) $\frac{7}{8}$ (A) $\frac{4}{9}$ (Y) $\frac{5}{6}$ (K) $\frac{2}{15}$ (E) $\frac{6}{11}$ (N) $\frac{9}{20}$ (O) $\frac{2}{17}$ (V) $\frac{4}{7}$
4.  5.  6. 
- (H) $\frac{7}{16}$ (I) $\frac{1}{5}$ (B) $\frac{11}{14}$ (R) $\frac{7}{10}$ (P) $\frac{10}{21}$ (S) $\frac{1}{9}$ (G) $\frac{3}{7}$ (F) $\frac{3}{19}$ (E) $\frac{11}{13}$
7.  8.  9. 
- (U) $\frac{7}{15}$ (I) $\frac{3}{14}$ (M) $\frac{3}{5}$ (J) $\frac{1}{8}$ (D) $\frac{4}{9}$ (T) $\frac{14}{17}$ (H) $\frac{7}{12}$ (A) $\frac{13}{16}$ (R) $\frac{3}{10}$

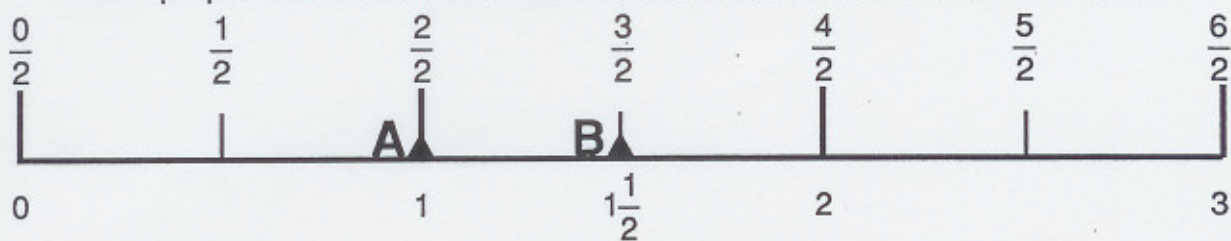
II. Circle the fraction that matches the description given.

- | | | |
|--|---|--|
| 10. Close to 0
(N) $\frac{3}{7}$ (Y) $\frac{17}{20}$ (E) $\frac{1}{10}$ | 11. Close to $\frac{1}{2}$
(I) $\frac{8}{15}$ (C) $\frac{4}{5}$ (P) $\frac{3}{16}$ | 12. Close to 1
(K) $\frac{3}{8}$ (W) $\frac{8}{9}$ (F) $\frac{7}{13}$ |
| 13. Close to 0
(O) $\frac{5}{9}$ (E) $\frac{2}{13}$ (R) $\frac{17}{18}$ | 14. Close to $\frac{1}{2}$
(N) $\frac{2}{9}$ (S) $\frac{9}{10}$ (T) $\frac{5}{11}$ | 15. Close to 1
(T) $\frac{3}{5}$ (H) $\frac{17}{20}$ (O) $\frac{7}{16}$ |
| 16. Close to 0
(R) $\frac{5}{12}$ (E) $\frac{9}{8}$ (T) $\frac{7}{100}$ | 17. Close to $\frac{1}{2}$
(W) $\frac{9}{16}$ (K) $\frac{16}{9}$ (F) $\frac{2}{7}$ | 18. Close to 1
(N) $\frac{10}{17}$ (C) $\frac{1}{10}$ (D) $\frac{13}{12}$ |
| 19. Less than $\frac{1}{2}$
(G) $\frac{2}{3}$ (N) $\frac{6}{14}$ (R) $\frac{9}{16}$ | 20. More than $\frac{1}{2}$
(U) $\frac{13}{25}$ (L) $\frac{2}{5}$ (I) $\frac{49}{100}$ | 21. Less than 1
(M) $\frac{8}{7}$ (G) $\frac{20}{19}$ (T) $\frac{19}{20}$ |

5	15	10	17	2	19	8	3	20	14	12	7	16	4	1	9	13	21	11	18	6
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Improper fractions and mixed numbers on a number line

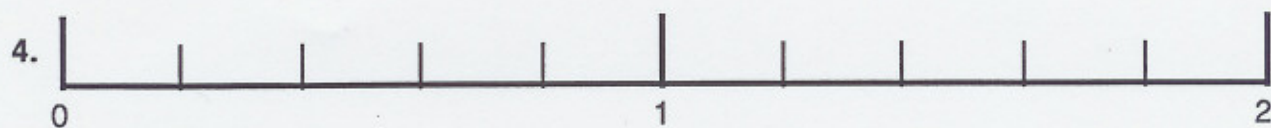
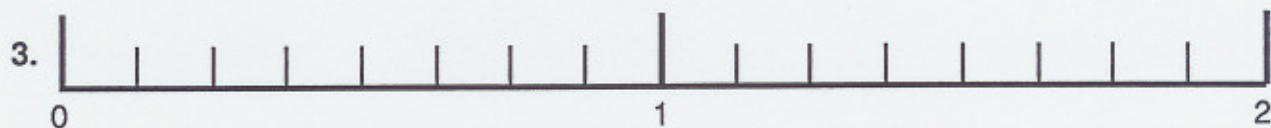
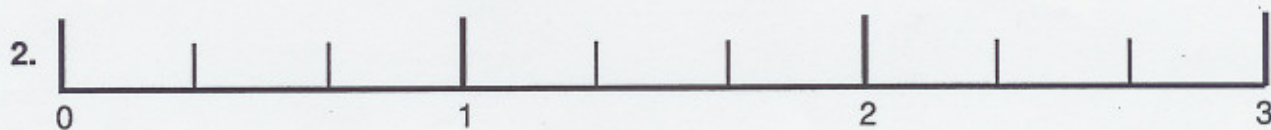
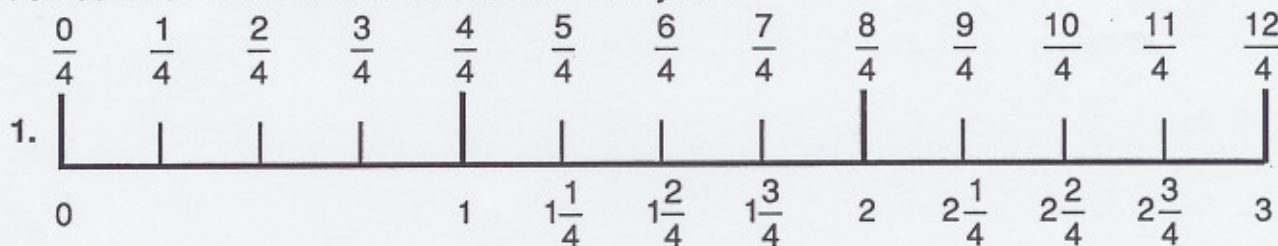
An improper fraction can be renamed as a whole number or mixed number.



Point A is represented by the improper fraction $\frac{2}{2}$ or the whole number 1.

Point B is represented by the improper fraction $\frac{3}{2}$ or the mixed number $1\frac{1}{2}$.

Write an improper fraction **and** a whole number or mixed number for each point on the number line. The first one has been done for you.

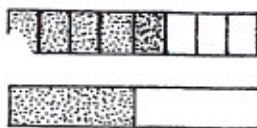


Mrs. MacLaughlin wanted to buy the largest drill bit in the store. Should she buy

the $\frac{5}{8}$ inch or $\frac{1}{2}$ inch drill bit?



You can use fraction bars to help find the answer.



$$\frac{5}{8} > \frac{1}{2}$$

Mrs. MacLaughlin should buy the $\frac{5}{8}$ inch drill bit.

Use $>$, $<$, $=$ to make a true sentence.

1. $\frac{3}{8} \bigcirc \frac{5}{8}$

2. $\frac{4}{8} \bigcirc \frac{1}{2}$

3. $\frac{1}{4} \bigcirc \frac{3}{8}$

4. $\frac{8}{8} \bigcirc \frac{1}{2}$

5. $\frac{1}{2} \bigcirc \frac{1}{3}$

6. $\frac{1}{2} \bigcirc \frac{1}{1}$

7. $\frac{1}{3} \bigcirc \frac{1}{4}$

8. $\frac{1}{8} \bigcirc \frac{1}{5}$

9. $\frac{1}{2} \bigcirc \frac{2}{3}$

10. $\frac{3}{5} \bigcirc \frac{1}{2}$

11. $\frac{1}{2} \bigcirc \frac{6}{12}$

12. $\frac{1}{2} \bigcirc \frac{3}{8}$

13. $\frac{1}{4} \bigcirc \frac{5}{8}$

14. $\frac{7}{12} \bigcirc \frac{1}{3}$

15. $\frac{3}{5} \bigcirc \frac{6}{10}$

16. $\frac{5}{6} \bigcirc \frac{1}{3}$

17. $\frac{5}{6} \bigcirc \frac{3}{4}$

18. $\frac{1}{3} \bigcirc \frac{5}{12}$

19. $\frac{7}{8} \bigcirc \frac{3}{4}$

20. $\frac{5}{8} \bigcirc \frac{7}{12}$

21. David bought $\frac{1}{4}$ of a pound of peanuts and $\frac{1}{8}$ of a pound of cashews. Which weighed more, the peanuts or the cashews?

22. Kim needed $\frac{5}{8}$ of a yard of cloth to sew a vest. Three remnants had lengths of $\frac{3}{8}$ yard, $\frac{3}{4}$ yard and $\frac{1}{2}$ yard. Which should she buy?

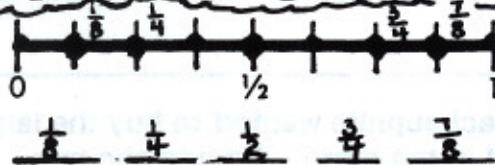


Ordering Fractions

Copy the lower part of the illustration.

Order from least to greatest.

$$\frac{1}{2} \quad \frac{7}{8} \quad \frac{1}{4} \quad \frac{3}{4} \quad \frac{1}{8}$$

Think of the $\frac{1}{8}$'s numberline.

Order from least to greatest:

1. $\frac{1}{4} \quad \frac{4}{4} \quad \frac{3}{4} \quad \frac{0}{4} \quad \frac{2}{4}$

3. $\frac{5}{6} \quad \frac{1}{6} \quad \frac{1}{2} \quad \frac{2}{6} \quad \frac{6}{6}$

5. $\frac{4}{12} \quad \frac{0}{12} \quad \frac{7}{12} \quad \frac{12}{12} \quad \frac{1}{2}$

7. $\frac{1}{4} \quad \frac{1}{8} \quad \frac{1}{2} \quad \frac{3}{8} \quad \frac{5}{8}$

9. $\frac{1}{2} \quad \frac{1}{4} \quad \frac{1}{3} \quad \frac{1}{5} \quad \frac{1}{1}$

11. $\frac{1}{3} \quad \frac{1}{2} \quad \frac{1}{6} \quad \frac{2}{3} \quad \frac{0}{6}$

13. $\frac{1}{12} \quad \frac{5}{12} \quad \frac{1}{4} \quad \frac{1}{3} \quad \frac{1}{6}$

15. $\frac{2}{5} \quad \frac{3}{10} \quad \frac{1}{10} \quad \frac{3}{5} \quad \frac{1}{2}$

2. $\frac{3}{8} \quad \frac{1}{8} \quad \frac{7}{8} \quad \frac{4}{8} \quad \frac{0}{8}$

4. $\frac{10}{10} \quad \frac{1}{10} \quad \frac{1}{2} \quad \frac{7}{10} \quad \frac{3}{10}$

6. $\frac{1}{5} \quad \frac{5}{5} \quad \frac{3}{5} \quad \frac{1}{2} \quad \frac{2}{5}$

8. $\frac{1}{2} \quad \frac{3}{4} \quad \frac{1}{8} \quad \frac{7}{8} \quad \frac{5}{8}$

10. $\frac{1}{8} \quad \frac{1}{5} \quad \frac{1}{12} \quad \frac{1}{10} \quad \frac{1}{2}$

12. $\frac{2}{3} \quad \frac{1}{12} \quad \frac{1}{6} \quad \frac{1}{3} \quad \frac{1}{2}$

14. $\frac{1}{2} \quad \frac{3}{4} \quad \frac{7}{12} \quad \frac{2}{3} \quad \frac{11}{12}$

16. $\frac{7}{8} \quad \frac{1}{2} \quad \frac{1}{4} \quad \frac{3}{8} \quad \frac{3}{4}$

