



## 1.1 Simplifying and Converting Fractions Solutions

In this worksheet, we will practice reducing and converting fractions from mixed numbers to improper fractions and vice versa, and then try a few word problems. If you would like further explanation before attempting these problems, links to video descriptions can be found at the end of this worksheet. Starred problems have video solutions.

1 Estimate an answer by drawing the fraction. Then fully reduce the fraction.

a.  $\frac{1}{2}$

b.  $\frac{3}{4}$

c.  $\frac{1}{3}$

d.  $\frac{3}{5}$

2 Convert the following to mixed numbers, or to fully simplified, improper fractions.

a.  $2\frac{1}{3}$

b.  $4\frac{1}{2}$

c.  $\frac{9}{5}$

d.  $\frac{20}{7}$

e.  $2\frac{2}{3}$

f.  $3\frac{1}{2}$

g.  $\frac{7}{2}$

h.  $2\frac{11}{4}$

3 \* You are trying to bake 24 cupcakes. You bake your first batch and only get 18. What fraction of a second batch do you need to make 24 total cupcakes?

(b)  $\frac{1}{4}$

4 \* A teacher is organizing her pencils by putting them in groups of 6. She has 100 pencils. Expressed as a mixed number, how many groups of pencils will she have?

(a) 16 and  $\frac{2}{3}$  groups

Additional Resources:

- Khan Academy video explaining how to simplify fractions: [https://www.youtube.com/watch?v=WPimvspI0\\_c](https://www.youtube.com/watch?v=WPimvspI0_c)
- Khan Academy video explaining mixed numbers and improper fractions: [https://www.youtube.com/watch?v=1xuf6ZKF1\\_I](https://www.youtube.com/watch?v=1xuf6ZKF1_I)
- A detailed solution to problem 1.b: <http://youtu.be/BHobXizhfpg>
- A detailed solution to problem 2.g: [http://youtu.be/33pvDq\\_WE2c](http://youtu.be/33pvDq_WE2c)
- A detailed solution to problem 3: <http://youtu.be/UOM1Bs1DKHk>
- A detailed solution to problem 4: <http://youtu.be/xhVFL10wKck>