Key Vocabulary

| numerator |
| :---: |
| denominator |
| unit fraction |
| non-unit fraction |
| equivalent |
| quantities |
| whole |
| halves |
| thirds |
| quarters |
| fifths |
| sixths |
| sevenths |
| eighths |
| ninths |
| tenths |

elevenths
twelfths

Fraction Families


Fractions of Quantities
To find a fraction of a number, divide by the denominator and multiply by numerator.

To find quarters of 20 :

| 20 |  |  |  |
| :--- | :--- | :--- | :--- |
| 5 | 5 | 5 | 5 |

$$
\frac{1}{4} \text { of } 20=5 \quad \frac{2}{4} \text { of } 20=10 \quad \frac{3}{4} \text { of } 20=15 \quad \frac{4}{4} \text { of } 20=20
$$

To find eighths of 56:

| 56 |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |  |


| $\frac{1}{8}$ of $56=7$ | $\frac{2}{8}$ of $56=14$ | $\frac{3}{8}$ of $56=21$ | $\frac{4}{8}$ of $56=28$ |
| :--- | :--- | :--- | :--- |
| $\frac{5}{8}$ of $56=35$ | $\frac{6}{8}$ of $56=42$ | $\frac{7}{8}$ of $56=49$ | $\frac{8}{8}$ of $56=56$ |

## Adding Fractions

## Subtracting fractions

## Fractions can be added when the denominators are the same.

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


$\frac{2}{8}+\frac{4}{8}+\frac{1}{8}=\frac{7}{8}$

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |


$\frac{4}{5}+\frac{2}{5}=\frac{6}{5}$ or $1 \frac{1}{5}$


Fractions can be subtracted when the denominators are the same.

$$
\frac{3}{4}-\frac{2}{4}=\frac{1}{4}
$$


$\frac{8}{6}-\frac{5}{6}=\frac{3}{6}$


