Name: _____ Date: _____

Get Ready

Working With Decimal Numbers

Use estimation to place the decimal point in the answer.
$50.1 \times 2.1 = 1\ 0\ 5\ 2\ 1$
Estimate: $50 \times 2 = 100$ Answer: 105.21

Place the decimal so the answer is close to 100.

1. Use estimation to place the decimal point in the answer.

a) $49.8 \div 0.98 = 5\ 0\ 8\ 1\ 6$

$50 \div$ _____ = _____

b) $2.7 \times 100.9 = 2\ 7\ 2\ 4\ 3$

Understanding Fractions

The shaded part of the diagram shows $\frac{4}{8}$ or $\frac{1}{2}$ or 0.5.

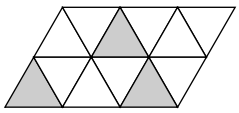
Which is larger, $\frac{1}{2}$ or $\frac{3}{8}$? Make the denominators the same to compare fractions.

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

$\frac{4}{8}$ is greater than $\frac{3}{8}$, so $\frac{1}{2} > \frac{3}{8}$.

4 > 3

2. **a)** Write the fraction for the shaded parts of each diagram.



_____

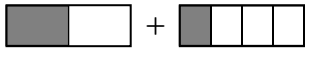
_____

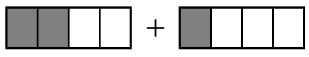
b) Compare the fractions from part a). Use > or <.

Adding or Subtracting Fractions

To add or subtract fractions, make the denominators the same.

- use diagrams

$\frac{1}{2} + \frac{1}{4}$ 

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

$= \frac{3}{4}$ 

- use a common denominator

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

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

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

$= \frac{1}{4}$

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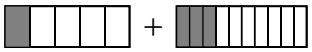
3. Solve.

a)  $+$

$\frac{1}{5} + \frac{3}{\square}$

b) $\frac{1}{2} + \frac{3}{8}$

Multiplying and Dividing Fractions

To multiply fractions, multiply the numerators and the denominators.

$$\frac{1}{2} \times \frac{3}{4}$$
$$= \frac{1 \times 3}{2 \times 4}$$
$$= \frac{3}{8}$$

$\frac{\text{numerator} \times \text{numerator}}{\text{denominator} \times \text{denominator}}$

To divide fractions,

- find a common denominator and divide the numerators

$$\frac{7}{10} \div \frac{2}{5}$$
$$= \frac{7}{10} \div \frac{4}{10}$$ Find a common denominator.
$$= \frac{7}{4}$$ Divide the numerators.

- multiply by the reciprocal

The reciprocal of $\frac{1}{2}$ is $\frac{2}{1}$.

$$\frac{7}{10} \div \frac{2}{5}$$
$$= \frac{7}{10} \times \frac{5}{2}$$ Multiply by the reciprocal.
$$= \frac{35}{20}$$ $\frac{\text{Multiply the numerators}}{\text{Multiply the denominators}}$
$$= \frac{7}{4}$$ Write in lowest terms.

4. Solve. Write your answer in lowest terms.

a) $\frac{2}{3} \times \frac{1}{3}$

b) $\frac{2}{3} \div \frac{1}{3}$