



Dividing Fractions Through Space

Dividing Fractions



Name: _____

Date: _____

Section 1: Whole Number $\div$ Unit Fraction

How many pieces fit? Write the answer.

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

There are 4 fourths in 1 whole, so there are 8 fourths in 2 wholes.

1) $3 \div \frac{1}{2} =$ (How many halves are in 3 wholes?)

2) $2 \div \frac{1}{3} =$ (How many thirds are in 2 wholes?)

3) $4 \div \frac{1}{4} =$ (How many fourths are in 4 wholes?)

4) $5 \div \frac{1}{2} =$ (How many halves are in 5 wholes?)

5) $3 \div \frac{1}{5} =$ (How many fifths are in 3 wholes?)





Section 2: Unit Fraction ÷ Whole Number

Share the piece equally. How big is each share?

Example

$$1/3 \div 2 = 1/6$$

Split $1/3$ into 2 equal parts. Each part is $1/6$ of the whole.

1) $1/2 \div 3 =$

2) $1/4 \div 2 =$

3) $1/3 \div 4 =$

4) $1/5 \div 2 =$

5) $1/6 \div 3 =$





Section 3: Check by Multiplying

Divide. Then multiply to check your answer.

Example

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

$$\text{Check: } 8 \times \frac{1}{4} = 2$$

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

Check: $\times \frac{1}{3} = 2$

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

Check: $\times \frac{1}{2} = 4$

3) $\frac{1}{4} \div 3 =$

Check: $\times 3 = \frac{1}{4}$

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

Check: $\times 2 = \frac{1}{2}$

5) $6 \div \frac{1}{3} =$

Check: $\times \frac{1}{3} = 6$





Section 4: Space Word Problems

Read the story. Write a division sentence and solve.

Example

A rocket has 2 gallons of fuel. Each engine burn uses $\frac{1}{4}$ gallon. How many burns can it make? $2 \div \frac{1}{4} = 8$ burns.

- 1) An alien has 3 cups of moon juice and pours $\frac{1}{2}$ -cup servings. How many servings can it pour?

- 2) A crew has $\frac{1}{2}$ pound of space trail mix to share equally among 4 astronauts. How much trail mix does each astronaut get?

- 3) A scientist has 4 meters of rope and cuts it into pieces that are $\frac{1}{3}$ meter long. How many pieces does the scientist get?

- 4) Two aliens share $\frac{1}{3}$ of a pizza equally. What fraction of the whole pizza does each alien get?





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Answer Key

Teacher Copy

Section 1: Whole Number ÷ Unit Fraction

Section 1: 1) 6 2) 6 3) 16 4) 10 5) 15

Section 2: Unit Fraction ÷ Whole Number

Section 2: 1) $\frac{1}{6}$ 2) $\frac{1}{8}$ 3) $\frac{1}{12}$ 4) $\frac{1}{10}$ 5) $\frac{1}{18}$

Section 3: Check by Multiplying

Section 3 (answer, check): 1) 6, $6 \times \frac{1}{3} = 2$

2) 8, $8 \times \frac{1}{2} = 4$

3) $\frac{1}{12}$, $\frac{1}{12} \times 3 = \frac{1}{4}$

4) $\frac{1}{4}$, $\frac{1}{4} \times 2 = \frac{1}{2}$

5) 18, $18 \times \frac{1}{3} = 6$

Section 4: Space Word Problems

Section 4: 1) 6 servings 2) $\frac{1}{8}$ pound

3) 12 pieces 4) $\frac{1}{6}$ of the pizza

