Crack the Fractions Safe

Multiplication/Division - Fractions

Instructions:

Solve each word problem and circle the correct key. Then write the letter from each circled key in its place on the lines at the bottom.

Helpful Hint:

To multiply fractions:

STEP 1 Multiply the numerators (the top numbers of a fraction).

$$\frac{4}{5} \times \frac{5}{7} = \frac{20}{}$$

STEP 2 Multiply the denominators (the bottom numbers of a fraction).

$$\frac{4}{5} \times \frac{5}{7} = \frac{20}{35}$$

STEP 3 Simplify your answer. To do this, divide both the top and bottom numbers by the greatest common factor (the greatest number that will divide into both numbers).

$$\frac{20}{35} \div \frac{5}{5} = \frac{4}{7}$$

To divide fractions:

STEP 1 Change the equation from a division problem to a multiplication problem. To do this, simply take the second fraction and flip the top and bottom numbers.

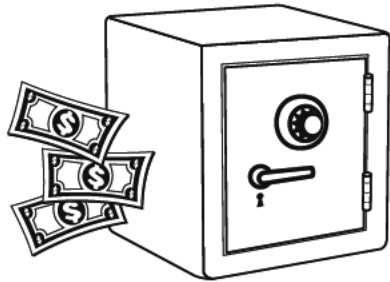$$3 \div \frac{4}{5} \longrightarrow \frac{3}{1} \times \frac{5}{4}$$

STEP 2 Multiply.

$$\frac{3}{1} \times \frac{5}{4} = \frac{15}{4}$$

STEP 3 Simplify.

$$\frac{15}{4} = 3\frac{3}{4}$$

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Crack the Fractions Safe

Crack the code to solve the riddle.

1 $5 \div \dfrac{1}{4} =$

R 25   **O** 20   **P** 15

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2 $\dfrac{7}{8} \times \dfrac{3}{4} =$

A $\dfrac{24}{28}$ **I** $\dfrac{21}{32}$ **T** $\dfrac{21}{36}$

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3 $3 \div \dfrac{1}{3} =$

I $\dfrac{1}{9}$ **M** 6   **R** 9

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4 $\dfrac{2}{3} \times \dfrac{7}{10} =$

A $\dfrac{21}{20}$ **R** $\dfrac{7}{15}$ **T** $\dfrac{21}{30}$

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5 $7 \div \dfrac{5}{8} =$

M $11\dfrac{1}{5}$ **S** $4\dfrac{3}{8}$ **B** $12\dfrac{4}{5}$

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6 $\dfrac{3}{11} \times \dfrac{3}{4} =$

E $\dfrac{18}{99}$ **S** $\dfrac{33}{42}$ **R** $\dfrac{9}{44}$
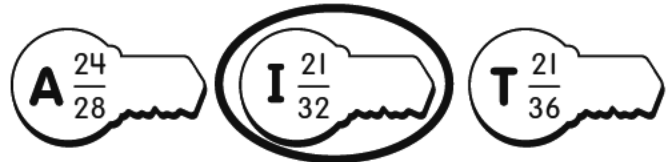

What turns everything around but does not move?

$\overline{\quad}$ $\overline{\quad}$ $\overline{\quad}$ $\overline{\quad}$ $\overline{\quad}$ $\overline{\quad}$
  5   2   4   3   1   6

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Answer Key

1
$5 \div \frac{1}{4} =$

$\frac{5}{1} \times \frac{4}{1} = \frac{20}{1} = 20$
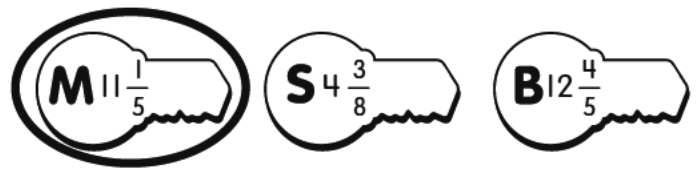
R 25   **(O 20)**   P 15

2
$\frac{7}{8} \times \frac{3}{4} = \frac{21}{32}$

A $\frac{24}{28}$ **(I $\frac{21}{32}$)**   T $\frac{21}{36}$

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

$\frac{3}{1} \times \frac{3}{1} = \frac{9}{1} = 9$
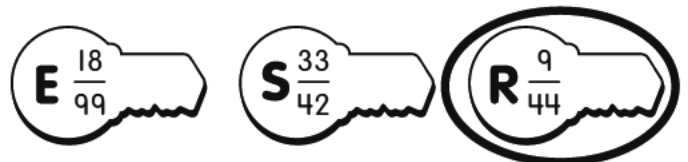
I $\frac{1}{9}$ M 6   **(R 9)**

4
$\frac{2}{3} \times \frac{7}{10} = \frac{14}{30}$

$\frac{14}{30} \div \frac{2}{2} = \frac{7}{15}$

A $\frac{21}{20}$ **(R $\frac{7}{15}$)**   T $\frac{21}{30}$

5
$7 \div \frac{5}{8} =$

$\frac{7}{1} \times \frac{8}{5} = \frac{56}{5} = 11\frac{1}{5}$

(M 11$\frac{1}{5}$)   S 4$\frac{3}{8}$ B 12$\frac{4}{5}$

6
$\frac{3}{11} \times \frac{3}{4} = \frac{9}{44}$

E $\frac{18}{99}$ S $\frac{33}{42}$ **(R $\frac{9}{44}$)**

What turns everything around but does not move?

M	I	R	R	O	R
5	2	4	3	1	6