Grade 3 Unit 8 worksheet: What the numerator and the denominator each tell you (answer key)

ANSWERS AT A GLANCE

1. (a) $\frac{1}{2}$ (b) $\frac{3}{4}$ (c) $\frac{2}{6}$ (d) $\frac{5}{8}$

2. A: $\frac{1}{4}$ B: $\frac{2}{3}$ C: $\frac{2}{6}$

3. 8 equal parts; beans grow in 5 of them.

4. A flag cut into 3 equal parts with 2 parts shaded.

5. He switched the numbers. He ate $\frac{3}{4}$ of the waffle.

WORKED SOLUTIONS

1. Write each one as a fraction.

(a) one half $=$ _____ (b) three fourths $=$ _____

(c) two sixths $=$ _____ (d) five eighths $=$ _____

ANSWER

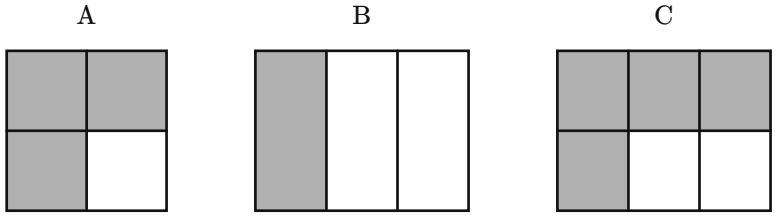
(a) $\frac{1}{2}$ (b) $\frac{3}{4}$ (c) $\frac{2}{6}$ (d) $\frac{5}{8}$

SOLUTION

The count comes first and goes on top. The piece name comes second and goes on the bottom.

(a) one half: 1 piece, halves, so $\frac{1}{2}$. (b) three fourths: $\frac{3}{4}$. (c) two sixths: $\frac{2}{6}$. (d) five eighths: $\frac{5}{8}$.

2. What fraction of each shape is NOT shaded?



A: _____ B: _____ C: _____

ANSWER

A: $\frac{1}{4}$ B: $\frac{2}{3}$ C: $\frac{2}{6}$

SOLUTION

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Count all the equal parts for the denominator. Count the white parts for the numerator.

A has 4 equal parts and 1 is white: $\frac{1}{4}$.

B has 3 equal parts and 2 are white: $\frac{2}{3}$.

C has 6 equal parts and 2 are white: $\frac{2}{6}$.

3. Lily plants beans in $\frac{5}{8}$ of her garden. Fill in the blanks.

Her garden has _____ equal parts.

Beans grow in _____ of those parts.

ANSWER

8 equal parts; beans grow in 5 of them.

SOLUTION

The denominator 8 names the parts. It says 8 equal parts make the whole garden.

The numerator 5 counts the parts. Beans grow in 5 of those parts.

4. Draw a flag cut into 3 equal parts. Shade $\frac{2}{3}$ of it.

ANSWER

A flag cut into 3 equal parts with 2 parts shaded.

SOLUTION

The denominator 3 says how to cut. Draw 3 parts that are all the same size.

The numerator 2 says how many to shade. Shade any 2 of the parts.

One part is left unshaded. That part is $\frac{1}{3}$ of the flag.

5. Kofi cuts a waffle into 4 equal parts. He eats 3 parts. He writes $\frac{4}{3}$. What did he do wrong? Write the right fraction.

ANSWER

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He switched the numbers. He ate $\frac{3}{4}$ of the waffle.

SOLUTION

The bottom number names the parts. The waffle has 4 equal parts, so 4 goes on the bottom.

The top number counts the parts eaten. Kofi ate 3 parts, so 3 goes on top.

Kofi put them the wrong way round. He ate $\frac{3}{4}$ of the waffle.

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