

Student A

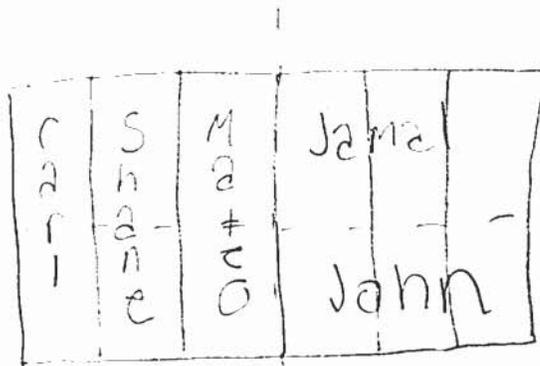
John is celebrating his birthday with his friends. Each of his friends wants a different amount of birthday cake.

Answer the following questions about John's cake. Explain your work using pictures, words, and symbols:

- How could John cut the cake so that each of his friends gets the following shares? $\frac{1}{12}$
 - Carl gets $\frac{1}{6}$ of the cake.
 - Shane and Mateo share $\frac{1}{3}$ of the cake equally.
 - Jamal gets $\frac{1}{4}$ of the cake.
 - John gets the remainder of the cake.
- What fraction of the cake would be left for John? $\frac{3}{12}$ or $\frac{1}{4}$
- Would all five friends get equal shares of the cake? If so, how do you know? If not, who gets the most cake?

$$\frac{1}{6} + \frac{1}{3} + \frac{1}{4}$$

$$\frac{2}{12} + \frac{4}{12} + \frac{3}{12} = \frac{9}{12}$$



$$\frac{3}{12} = \frac{1}{4}$$

No, because Carl, Shane and Mateo got $\frac{2}{12}$ of the cake, and Jamal and John got $\frac{3}{12}$. John and Jamal had the biggest pieces.

Student B

John is celebrating his birthday with his friends. Each of his friends wants a different amount of birthday cake.

Answer the following questions about John's cake. Explain your work using pictures, words, and symbols:

1. How could John cut the cake so that each of his friends gets the following shares?

- Carl gets $\frac{1}{6}$ of the cake. $\frac{1}{6}$ $\frac{1 \times 2}{3 \times 2}$ $\frac{2}{6} - \frac{1}{6} = \frac{1}{6}$
- Shane and Mateo share $\frac{1}{3}$ of the cake equally. $\frac{1 \times 2}{3 \times 2}$ $\frac{1}{4}$
- Jamal gets $\frac{1}{4}$ of the cake.
- John gets the remainder of the cake. 4

2. What fraction of the cake would be left for John? $\frac{1}{3} - \frac{1}{4} = \frac{0}{4}$

3. Would all five friends get equal shares of the cake? If so, how do you know? If not, who gets the most cake? John

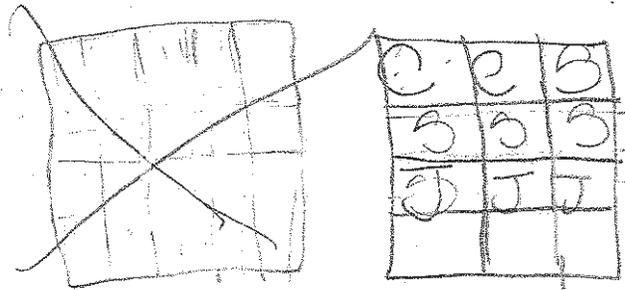
Student C

John is celebrating his birthday with his friends. Each of his friends wants a different amount of birthday cake.

Answer the following questions about John's cake. Explain your work using pictures, words, and symbols:

1. How could John cut the cake so that each of his friends gets the following shares?

- Carl gets $\frac{1}{6}$ of the cake. $\frac{2}{12}$
- Shane and Mateo share $\frac{1}{3}$ of the cake equally. $\frac{2}{6}$ $\frac{3}{9}$ $\frac{4}{12}$
- Jamal gets $\frac{1}{4}$ of the cake. $\frac{3}{12}$
- John gets the remainder of the cake.



2. What fraction of the cake would be left for John?

$\frac{3}{12}$

3. Would all five friends get equal shares of the cake? If so, how do you know? If not, who gets the most cake?

No. Jamal.

Student D

John is celebrating his birthday with his friends. Each of his friends wants a different amount of birthday cake.

Answer the following questions about John's cake. Explain your work using pictures, words, and symbols:

1. How could John cut the cake so that each of his friends gets the following shares?

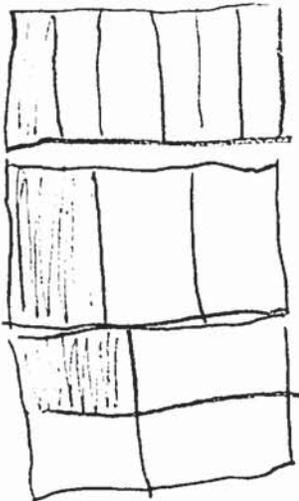
- Carl gets $\frac{1}{6}$ of the cake.
- Shane and Mateo share $\frac{1}{3}$ of the cake equally.
- Jamal gets $\frac{1}{4}$ of the cake.
- John gets the remainder of the cake.

2. What fraction of the cake would be left for John?

$\frac{3}{12}$ or $\frac{1}{4}$

3. Would all five friends get equal shares of the cake? If so, how do you know? If not, who gets the most cake?

No. John and Jamal gets the most.



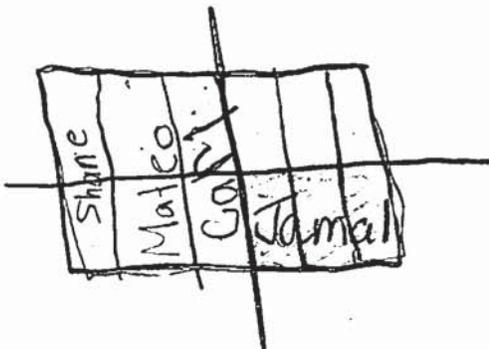
$\frac{1}{6}$ Carl

$\frac{1}{3}$ Shane and Mateo

$\frac{1}{4}$ Jamal

They are not equal.

I drew pictures to show how much they got.



John gets $\frac{3}{12}$ pieces of cake.

Student E

John is celebrating his birthday with his friends. Each of his friends wants a different amount of birthday cake.

Answer the following questions about John's cake. Explain your work using pictures, words, and symbols:

- How could John cut the cake so that each of his friends gets the following shares?
 - Carl gets $\frac{1}{6}$ of the cake.
 - Shane and Mateo share $\frac{1}{3}$ of the cake equally.
 - Jamal gets $\frac{1}{4}$ of the cake.
 - John gets the remainder of the cake.
- What fraction of the cake would be left for John?
- Would all five friends get equal shares of the cake? If so, how do you know? If not, who gets the most cake?

$$\frac{1 \times 4}{3 \times 4} \quad \frac{1 \times 2}{6 \times 2} \quad \frac{1 \times 3}{4 \times 3}$$

$$\frac{4}{12} + \frac{2}{12} + \frac{3}{12} = \frac{9}{12}$$

Yes, the share is equal because if it is $\frac{9}{12}$ then they will all have equal pieces of the cake.

Student F

John is celebrating his birthday with his friends. Each of his friends wants a different amount of birthday cake.

Answer the following questions about John's cake. Explain your work using pictures, words, and symbols:

1. How could John cut the cake so that each of his friends gets the following shares?

- Carl gets $\frac{1 \times 2}{6 \times 2} \frac{2}{12}$ of the cake.

- Shane and Mateo share $\frac{1 \times 4}{3 \times 4} \frac{4}{12}$ of the cake equally.

- Jamal gets $\frac{1 \times 3}{4 \times 3} \frac{3}{12}$ of the cake.

- John gets the remainder of the cake.

$$\frac{2}{12} + \frac{4}{12} + \frac{3}{12} = \frac{9}{12}$$

2. What fraction of the cake would be left for John? $\frac{3}{12}$

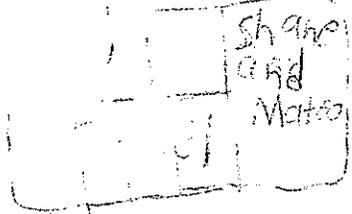
3. Would all five friends get equal shares of the cake? If so, how do you know? If not, who gets the most cake? No, and Jamal and John gets the most of the cake.

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Answer the following questions about John's cake. Explain your work using pictures, words, and symbols:

1. How could John cut the cake so that each of his friends gets the following shares?

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- Jamal gets $\frac{1}{4}$ of the cake.
- John gets the remainder of the cake.



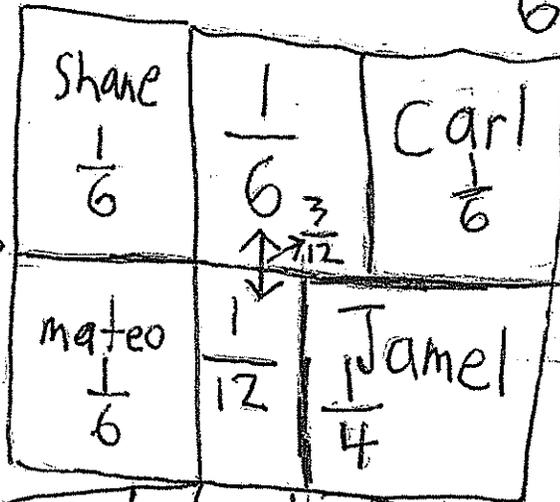
2. What fraction of the cake would be left for John?

3. Would all five friends get equal shares of the cake? If so, how do you know? If not, who gets the most cake?

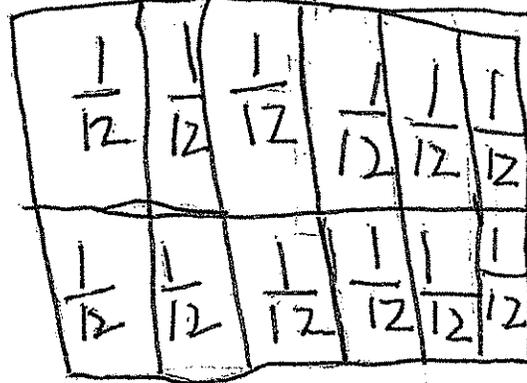
$$\frac{2}{12} + \frac{1}{12} = \frac{3}{12}$$

$$\frac{3}{12} + \frac{3}{12} = \frac{6}{12}$$

None
John and
Jamal got
the same
amount



If
Shane
and
Mateo
split a
third
than they
each got
one-sixth



John is celebrating his birthday with his friends. Each of his friends wants a different amount of birthday cake.

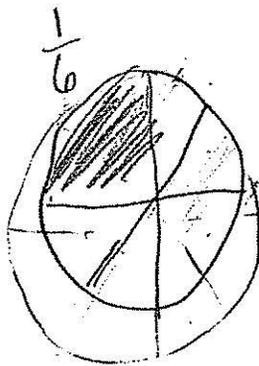
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- Jamal gets $\frac{1}{4}$ of the cake.
- John gets the remainder of the cake.

2. What fraction of the cake would be left for John? $\frac{1}{10}$

3. Would all five friends get equal shares of the cake? If so, how do you know? If not, who gets the most cake?



No, Carl got the most because the fraction is bigger