Unit: 4th – Fractions
Lesson: 4.3.A - 4.3.B - 4.3.E - Decompose fractions – pictures & models
Problem Set: 1
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1. D	**2.** B	**3.** B	**4.** A	**5.** C	**6.** D
7. C	**8.** D	**9.** A	**10.** A	**11.** D	**12.** A
13. B	**14.** A	**15.** C	**16.** D	**17.** A	**18.** D
19. B	**20.** B	**21.** C	**22.** D	**23.** D	**24.** A
25. C	**26.** C	**27.** A	**28.** B	**29.** D	**30.** C

1. Which expression is equivalent to $\frac{9}{8}$?

A. $\frac{3}{8} + \frac{3}{8}$

B. $\frac{1}{2} + \frac{2}{3} + \frac{6}{3}$

C. $\frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9}$

D. $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$

2. Which expression is equal to $\frac{6}{5}$?

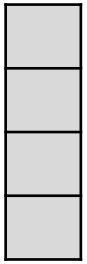
A. $\frac{1}{6} + \frac{1}{5}$

B. $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

C. $\frac{1}{5} + \frac{6}{1}$

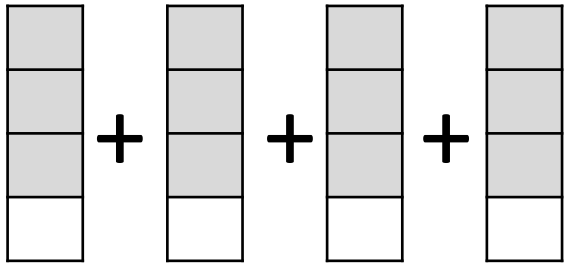
D. $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6}$

3. This model is shaded to represent one whole.



Model Y is shaded to represent a number greater than one.

Model Y:



Which expression CANNOT be used to represent this number?

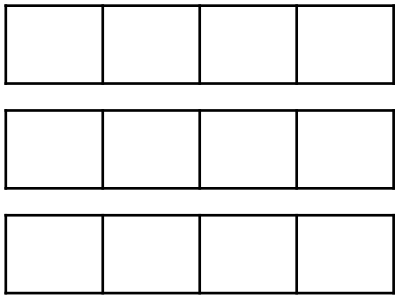
A. $\frac{4}{4}+\frac{4}{4}+\frac{4}{4}$

B. $\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}$

C. $\frac{4}{4}+\frac{4}{4}+\frac{3}{4}+\frac{1}{4}$

D. $\frac{3}{4}+\frac{3}{4}+\frac{3}{4}+\frac{3}{4}$

4. This model can be shaded to represent the fraction $\frac{7}{4}$.



Which number sentence represents two different ways that $\frac{7}{4}$ can be represented with shaded fractions on the model?

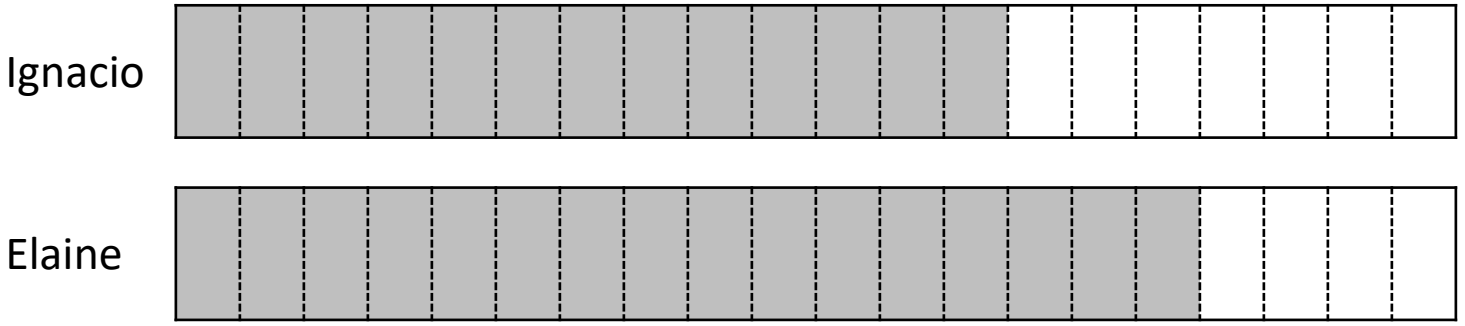
A. $\frac{2}{4}+\frac{2}{4}+\frac{3}{4}=\frac{5}{4}+\frac{2}{4}$

B. $\frac{3}{4}+\frac{4}{4}=\frac{1}{4}+\frac{4}{4}+\frac{1}{4}$

C. $\frac{1}{4}+\frac{1}{4}+\frac{1}{4}=\frac{3}{4}+\frac{4}{4}$

D. $\frac{2}{4}+\frac{3}{4}+\frac{2}{4}=\frac{7}{4}+\frac{1}{4}$

5. Ignacio and Elaine read the same book. The shaded part of each model represents the fraction of the book that each student read.



Which expression can be used to find the difference between the fraction of the book Elaine read and the fraction of the book Ignacio read?

A. $\frac{16}{4} - \frac{13}{7}$

B. $\frac{7}{13} - \frac{4}{16}$

C. $\frac{16}{20} - \frac{13}{20}$

D. $\frac{20}{16} - \frac{20}{13}$

6. Zeke used $\frac{3}{4}$ cup white sugar, $\frac{3}{4}$ cup brown sugar, and $2\frac{1}{4}$ cups of flour to bake some cookies.

What was the difference between the amount of flour and the combined amount of sugar Zeke used?

A. $3\frac{3}{4}$ cups

B. $1\frac{2}{4}$ cups

C. $\frac{2}{4}$ cup

D. $\frac{3}{4}$ cup

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Problem Set: 2
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1. D	**2.** B	**3.** B	**4.** A	**5.** C	**6.** D
7. C	**8.** D	**9.** A	**10.** A	**11.** D	**12.** A
13. B	**14.** A	**15.** C	**16.** D	**17.** A	**18.** D
19. B	**20.** B	**21.** C	**22.** D	**23.** D	**24.** A
25. C	**26.** C	**27.** A	**28.** B	**29.** D	**30.** C

7. The fraction $\frac{3}{8}$ can be represented by this expression.

$$\frac{1}{8} + \frac{1}{8} + \square$$

What fraction belongs in the $\square$ to complete the expression?

A. $\frac{2}{8}$

C. $\frac{1}{8}$

B. $\frac{3}{8}$

D. $\frac{1}{16}$

8. Which expression is equivalent to $\frac{5}{7}$?

A. $\frac{3}{4} + \frac{2}{3}$

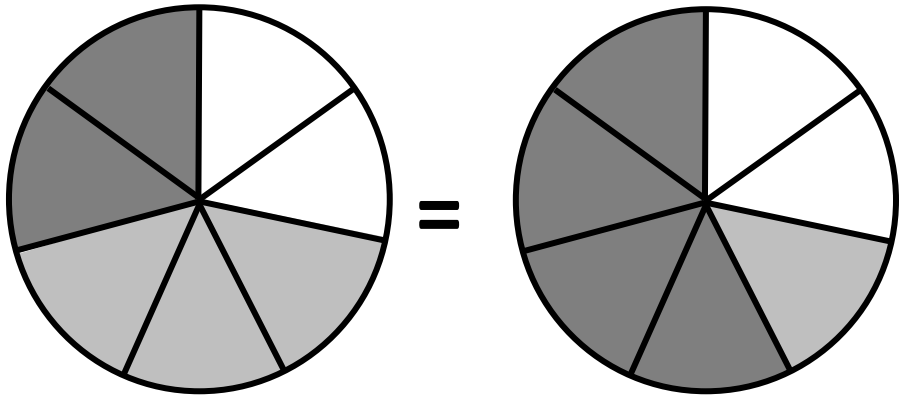
B. $\frac{5}{1} + \frac{1}{7}$

C. $\frac{5}{1} + \frac{5}{1} + \frac{5}{1} + \frac{5}{1} + \frac{5}{1} + \frac{5}{1} + \frac{5}{1}$

D. $\frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7}$

9. The two models are shaded to represent the same fraction, $\frac{5}{7}$.

Model 1 Model 2



Which equation shows that the two models represent the same fraction?

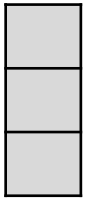
A. $\frac{2}{7}+\frac{3}{7}=\frac{4}{7}+\frac{1}{7}$

B. $\frac{2}{7}+\frac{3}{7}=\frac{5}{7}+\frac{1}{7}$

C. $\frac{1}{2}+\frac{1}{3}=\frac{1}{4}+\frac{1}{1}$

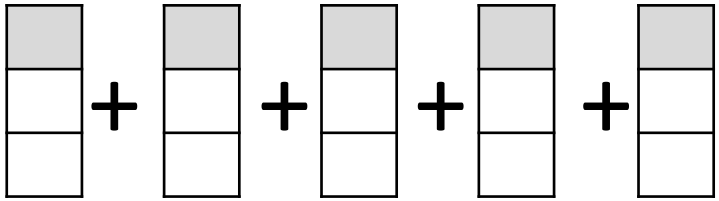
D. $\frac{1}{2}+\frac{1}{3}=\frac{1}{5}+\frac{1}{1}$

10. This model is shaded to represent one whole.



Model Y is shaded to represent a number greater than one.

Model Y:



Which expression CANNOT be used to represent this number?

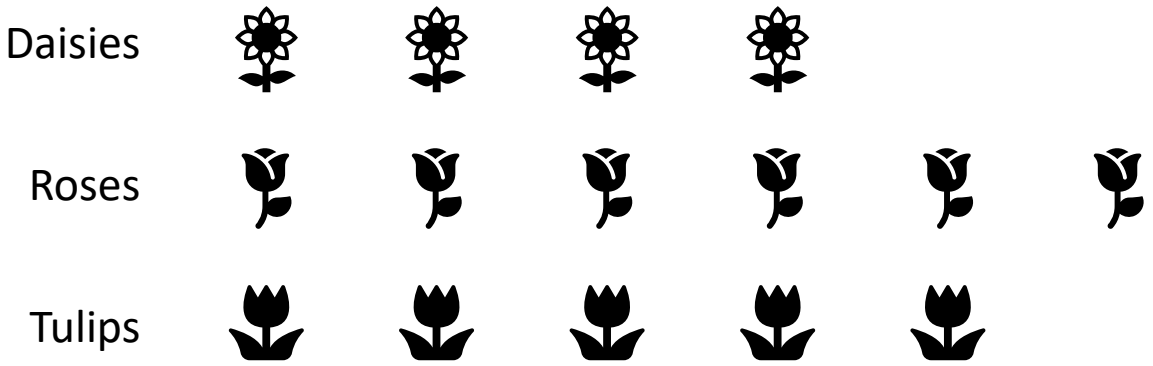
A. $\frac{3}{3}+\frac{3}{3}+\frac{3}{3}+\frac{3}{3}+\frac{3}{3}$

B. $\frac{2}{3}+\frac{3}{3}$

C. $\frac{1}{3}+\frac{1}{3}+\frac{1}{3}+\frac{1}{3}+\frac{1}{3}$

D. $\frac{1}{3}+\frac{1}{3}+\frac{1}{3}+\frac{2}{3}$

11. The number of each kind of flower in a vase is shown.



Which expression can be used to find the fraction of flowers in the vase that are daisies or tulips?

A. $\frac{6}{6} + \frac{5}{5}$

B. $\frac{4}{4} + \frac{5}{5}$

C. $\frac{6}{15} + \frac{5}{15}$

D. $\frac{4}{15} + \frac{5}{15}$

12. On Monday, Pete and Ted completed a total of $\frac{7}{10}$ of their group project. Pete completed $\frac{3}{10}$ of the project.

What fraction of the group project did Ted compete on Monday?

A. $\frac{4}{10}$

B. $\frac{4}{7}$

C. $\frac{7}{10}$

D. $\frac{3}{4}$

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Problem Set: 3
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7. C	**8.** D	**9.** A	**10.** A	**11.** D	**12.** A
13. B	**14.** A	**15.** C	**16.** D	**17.** A	**18.** D
19. B	**20.** B	**21.** C	**22.** D	**23.** D	**24.** A
25. C	**26.** C	**27.** A	**28.** B	**29.** D	**30.** C

13. Which expression is equal to $\frac{7}{5}$?

A. $\frac{3}{2} + \frac{4}{3}$

B. $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

C. $\frac{7}{1} + \frac{1}{5}$

D. $\frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7}$

14. The fraction $\frac{4}{5}$ can be represented by this expression.

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

What fraction belongs in the $\square$ to complete the expression?

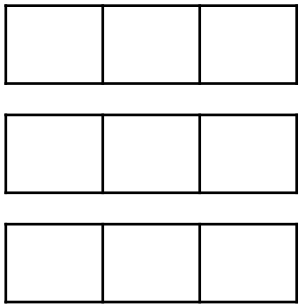
A. $\frac{1}{5}$

C. $\frac{1}{4}$

B. $\frac{3}{4}$

D. $\frac{1}{20}$

15. This model can be shaded to represent the fraction $\frac{8}{3}$.



Which number sentence represents two different ways that $\frac{8}{3}$ can be represented with shaded fractions on the model?

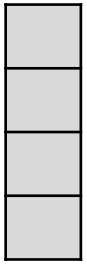
A. $\frac{1}{3}+\frac{1}{3}+\frac{5}{3}=\frac{4}{3}+\frac{4}{3}$

B. $\frac{1}{3}+\frac{5}{3}=\frac{2}{3}+\frac{6}{3}$

C. $\frac{5}{3}+\frac{3}{3}=\frac{4}{3}+\frac{4}{3}$

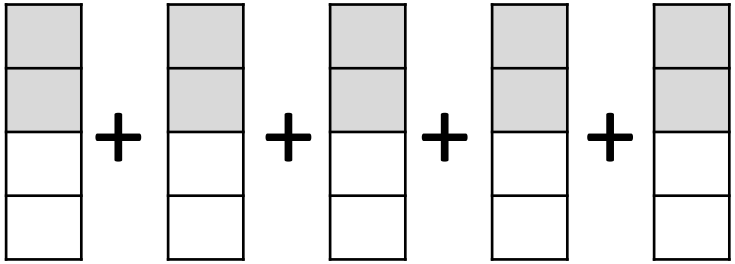
D. $\frac{4}{1}+\frac{4}{2}=\frac{6}{3}+\frac{2}{3}$

16. This model is shaded to represent one whole.



Model Y is shaded to represent a number greater than one.

Model Y:



Which expression CANNOT be used to represent this number?

A. $\frac{2}{4}+\frac{2}{4}+\frac{2}{4}+\frac{2}{4}+\frac{2}{4}$

B. $\frac{4}{4}+\frac{4}{4}+\frac{2}{4}$

C. $\frac{3}{4}+\frac{3}{4}+\frac{2}{4}+\frac{2}{4}$

D. $\frac{5}{2}+\frac{5}{2}$

17. Kimber made cookies to sell at her Bakery.

- $\frac{4}{10}$ of the cookies were Peanut Butter
- $\frac{3}{10}$ of the cookies were chocolate chip
- The rest were sugar cookies.

What fraction of the cookies were sugar cookies?

A. $\frac{3}{10}$, because $\frac{4}{10} + \frac{3}{10} = \frac{7}{10}$ and $\frac{10}{10} - \frac{7}{10} = \frac{3}{10}$

C. $\frac{7}{10}$, because $\frac{4}{10} + \frac{3}{10} = \frac{7}{10}$

B. $\frac{1}{10}$, because $\frac{4}{10} - \frac{3}{10} = \frac{1}{10}$

D. $\frac{17}{10}$, because $\frac{4}{10} + \frac{3}{10} = \frac{7}{10}$ and $\frac{10}{10} + \frac{7}{10} = \frac{17}{10}$

18. Christian used parts of two sticks of butter to make biscuits for his family. The models are shaded to represent the part of each stick of butter he used.

First stick of butter

Second stick of butter

What fraction of the sticks of butter did Christian use for his biscuits?

A. $\frac{3}{8}$

B. $1\frac{2}{8}$

C. $\frac{7}{8}$

D. $1\frac{1}{8}$

Unit: 4th – Fractions
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Problem Set: 4
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1. D	**2.** B	**3.** B	**4.** A	**5.** C	**6.** D
7. C	**8.** D	**9.** A	**10.** A	**11.** D	**12.** A
13. B	**14.** A	**15.** C	**16.** D	**17.** A	**18.** D
19. B	**20.** B	**21.** C	**22.** D	**23.** D	**24.** A
25. C	**26.** C	**27.** A	**28.** B	**29.** D	**30.** C

19. The fraction $\frac{5}{6}$ can be represented by this expression.

$$\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\square$$

What fraction belongs in the $\square$ to complete the expression?

A. $\frac{2}{6}$

C. $\frac{6}{1}$

B. $\frac{1}{6}$

D. $\frac{1}{30}$

20. Which expression is equal to $\frac{5}{10}$?

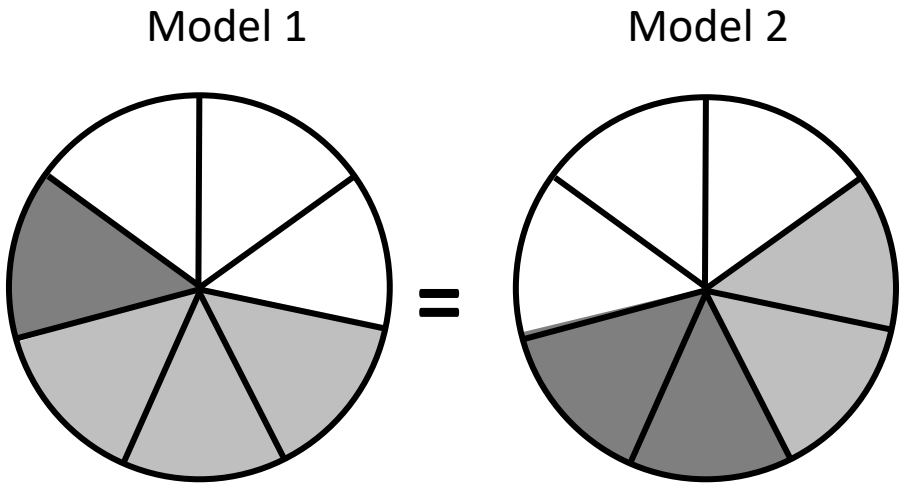
A. $\frac{1}{6} + \frac{4}{4}$

B. $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10}$

C. $\frac{5}{1} + \frac{1}{10}$

D. $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}$

21. The two models are shaded to represent the same fraction, $\frac{4}{7}$



Which equation shows that the two models represent the same fraction?

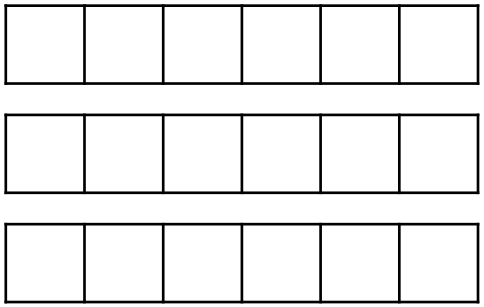
A. $\frac{3}{7}+\frac{1}{7}=\frac{3}{7}+\frac{2}{7}$

B. $\frac{1}{7}+\frac{1}{7}+\frac{1}{7}=\frac{2}{7}+\frac{2}{7}$

C. $\frac{1}{7}+\frac{3}{7}=\frac{2}{7}+\frac{2}{7}$

D. $\frac{1}{5}+\frac{3}{2}=\frac{2}{3}+\frac{2}{4}$

22. This model can be shaded to represent the fraction $\frac{9}{6}$.



Which number sentence represents two different ways that $\frac{9}{6}$ can be represented with shaded fractions on the model?

A. $\frac{4}{3}+\frac{5}{3}=\frac{2}{2}+\frac{7}{4}$

B. $\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\frac{1}{6}=\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\frac{1}{6}+\frac{1}{6}$

C. $\frac{3}{6}+\frac{3}{6}=\frac{2}{6}+\frac{4}{6}$

D. $\frac{3}{6}+\frac{3}{6}+\frac{3}{6}=\frac{6}{6}+\frac{3}{6}$

23. Yasmine made waffles for her family.

- $\frac{4}{7}$ of the waffles were blueberry.
- $\frac{1}{7}$ of the waffles were chocolate chip
- The rest of the waffles did not have blueberries or chocolate chips

What fraction of the waffles did not have blueberries or chocolate chips?

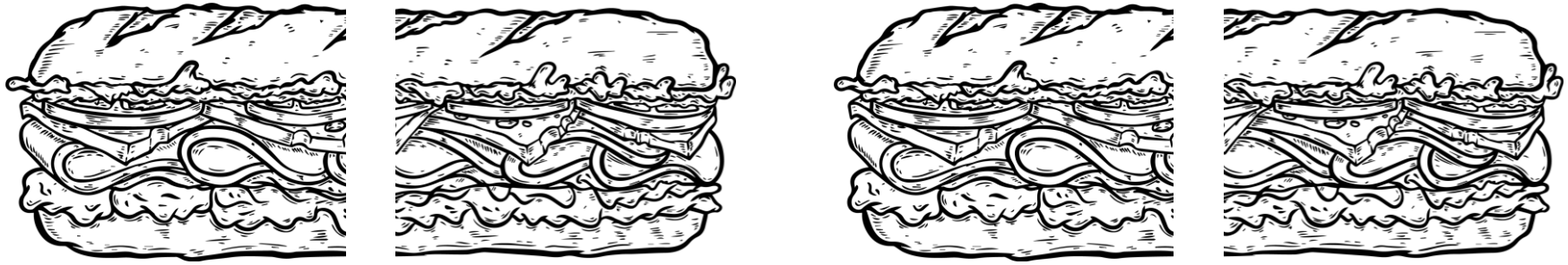
A. $\frac{5}{7}$, because $\frac{4}{7} + \frac{1}{7} = \frac{5}{7}$

B. $\frac{12}{7}$, because $\frac{4}{7} + \frac{1}{7} = \frac{5}{7}$ and $\frac{7}{7} + \frac{5}{7} = \frac{12}{7}$

C. $\frac{3}{7}$, because $\frac{4}{7} - \frac{1}{7} = \frac{3}{7}$

D. $\frac{2}{7}$, because $\frac{4}{7} + \frac{1}{7} = \frac{5}{7}$ and $\frac{7}{7} - \frac{5}{7} = \frac{2}{7}$

24. Mrs. Owen ordered two foot-long sandwiches for her three children to share. The picture shows the two sandwiches cut in half. Each child ate half a sandwich.



What fraction represents the number of sandwiches the children ate?

A. $\frac{3}{2}$

B. $\frac{2}{3}$

C. $\frac{4}{2}$

D. $\frac{3}{6}$

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Problem Set: 5
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7. C	**8.** D	**9.** A	**10.** A	**11.** D	**12.** A
13. B	**14.** A	**15.** C	**16.** D	**17.** A	**18.** D
19. B	**20.** B	**21.** C	**22.** D	**23.** D	**24.** A
25. C	**26.** C	**27.** A	**28.** B	**29.** D	**30.** C

25. Which expression is equivalent to $\frac{6}{9}$?

A. $\frac{3}{9} + \frac{3}{1}$

B. $\frac{1}{2} + \frac{2}{4} + \frac{3}{3}$

C. $\frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9}$

D. $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6}$

26. The fraction $\frac{3}{10}$ can be represented by this expression.

$$\frac{1}{10} + \frac{1}{10} + \square$$

What fraction belongs in the $\square$ to complete the expression?

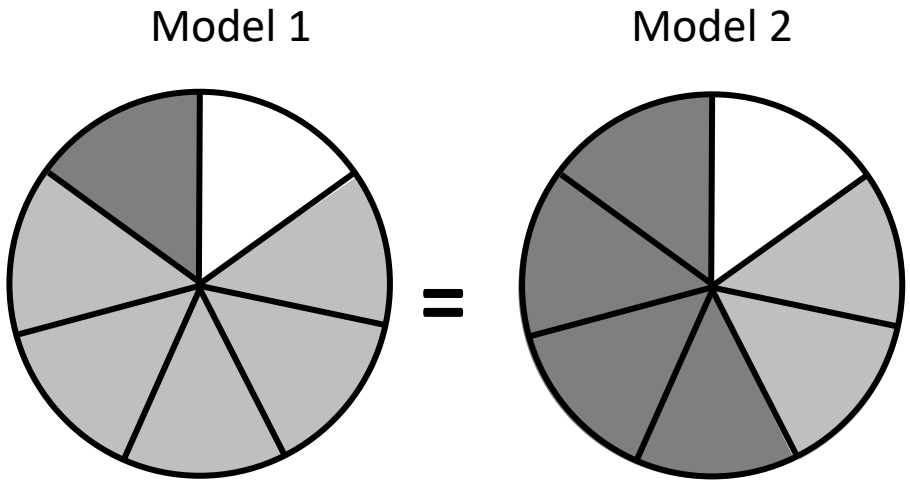
A. $\frac{2}{10}$

C. $\frac{1}{10}$

B. $\frac{3}{10}$

D. $\frac{1}{20}$

27. The two models are shaded to represent the same fraction, $\frac{6}{7}$.



Which equation shows that the two models represent the same fraction?

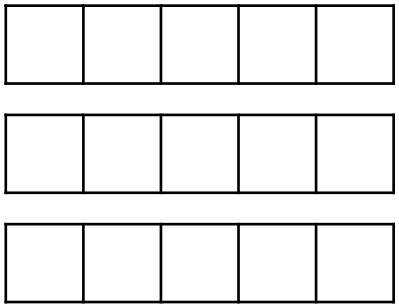
A. $\frac{1}{7}+\frac{5}{7}=\frac{4}{7}+\frac{2}{7}$

B. $\frac{2}{7}+\frac{3}{7}=\frac{5}{7}+\frac{1}{7}$

C. $\frac{2}{7}+\frac{5}{7}=\frac{4}{7}+\frac{3}{7}$

D. $\frac{1}{7}+\frac{1}{7}=\frac{2}{7}+\frac{1}{7}$

28. This model can be shaded to represent the fraction $\frac{9}{5}$.



Which number sentence represents two different ways that $\frac{9}{5}$ can be represented with shaded fractions on the model?

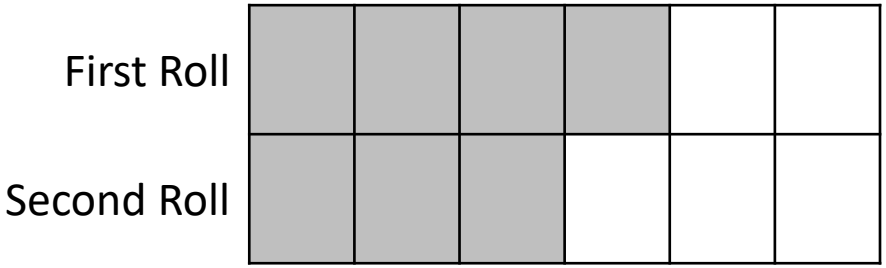
A. $\frac{2}{5}+\frac{2}{5}+\frac{2}{5}+\frac{3}{5}=\frac{4}{5}+\frac{3}{5}$

B. $\frac{5}{5}+\frac{4}{5}=\frac{6}{5}+\frac{3}{5}$

C. $\frac{4}{5}+\frac{4}{5}+\frac{1}{5}=\frac{3}{5}+\frac{3}{5}+\frac{2}{5}$

D. $\frac{4}{3}+\frac{5}{2}=\frac{2}{1}+\frac{7}{4}$

29. Mrs. Bernstein used parts of two identical rolls of paper to wrap packages. The models are shaded to represent the part of each roll she used.



What fraction of the rolls of paper did Mrs. Bernstein use to wrap the packages?

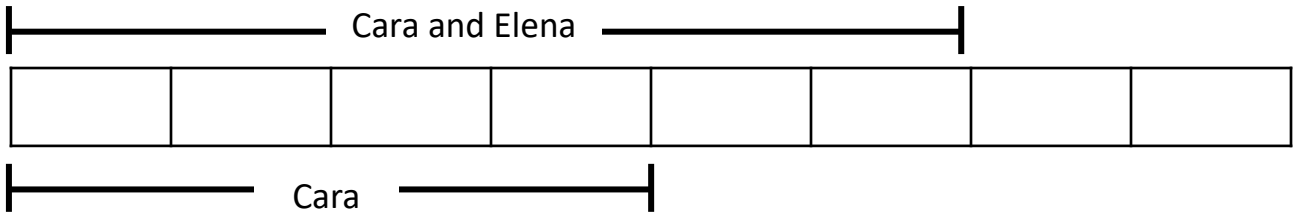
A. $\frac{1}{6}$

B. $1\frac{3}{6}$

C. $\frac{3}{6}$

D. $1\frac{1}{6}$

30. Cara and Elena used fabric to make costumes for a talent show. Cara used $\frac{4}{8}$ of the fabric for her costume. The girls used $\frac{6}{8}$ of the fabric altogether.



What fraction of the fabric did Elena use?

A. $\frac{10}{16}$

B. $\frac{10}{8}$

C. $\frac{2}{8}$

D. $\frac{1}{2}$