

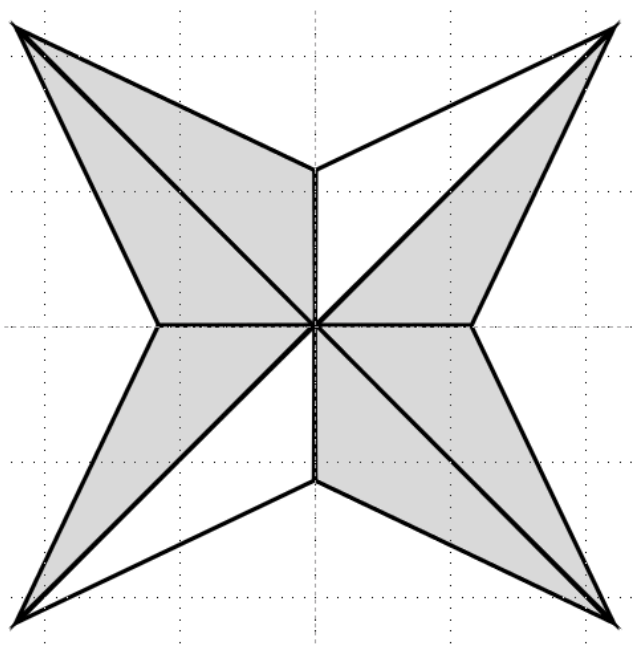
3.3.A- 3.3.C - 3.3.D - representing fractions

Problem Set: 1

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

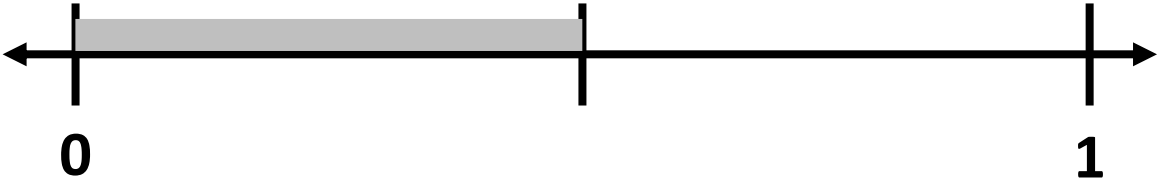


1. Anissa shaded part of the figure shown below. What fraction of the figure is shaded?



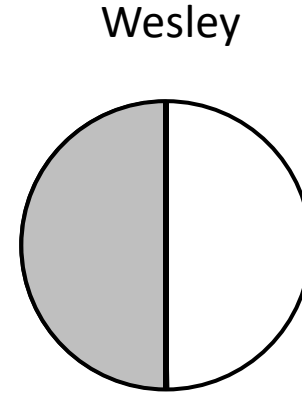
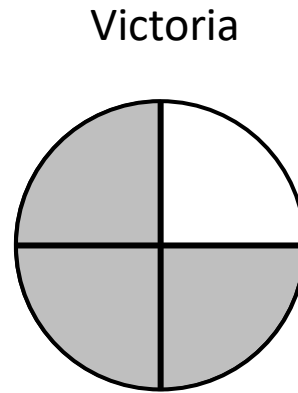
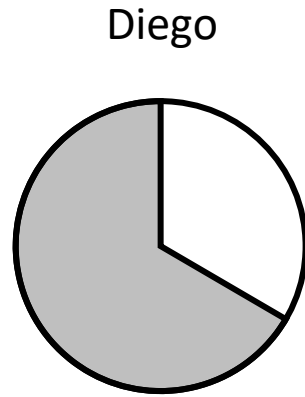
- A.  $\frac{6}{8}$
- B.  $\frac{1}{6}$
- C.  $\frac{2}{8}$
- D.  $\frac{2}{6}$

2. What fraction is represented by the shaded bar on the number line?



- A.  $\frac{1}{1}$
- B.  $\frac{1}{2}$
- C.  $\frac{2}{2}$
- D.  $\frac{2}{1}$

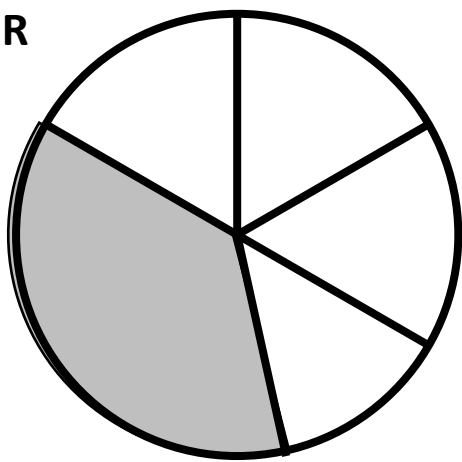
3. Three friends divided pizzas into pieces. The shaded parts of the models represent the pieces that the friends ate. Which statement describes the fraction of a pizza that one of the friends ate?



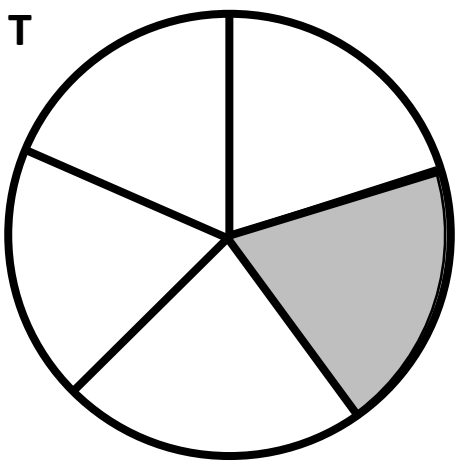
- A. Diego ate  $\frac{1}{2}$  of a pizza, because he ate the largest piece of his 2 pieces.
- B. Victoria ate  $\frac{1}{3}$  of a pizza, because she ate 1 piece and had 3 equal-size pieces left over.
- C. Wesley ate  $\frac{1}{2}$  of a pizza, because he ate 1 piece of his 2 equal-size pieces.
- D. Victoria ate  $\frac{3}{1}$  of a pizza, because she ate 1 piece and had 3 pieces left over.

4. Models R and T are shown. Which statement is true?

**Model R**

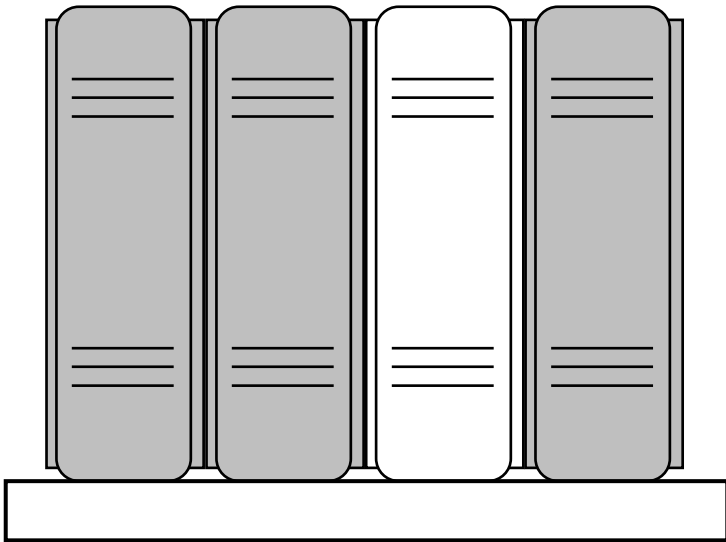


**Model T**



- A. The shaded parts of Model R and Model T are different sizes, but each model represents the same fraction of the whole.
- B. The shaded part of Model R cannot be written as the fraction  $\frac{1}{5}$ , because the parts are not all equal in size.
- C. The shaded part of Model T is  $\frac{1}{4}$ , because the parts are all equal in size.
- D. The total number of parts in Model R is 5, so  $\frac{1}{5}$  of Model R is shaded.

5. There are 4 books on a shelf. In the model the shaded books represent nonfiction books.



Which expression represents the fraction of the books on the shelf that are non-fiction?

- A.  $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$
- B.  $\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$
- C.  $\frac{1}{3} + \frac{1}{3} + \frac{1}{3}$
- D.  $\frac{3}{1} + \frac{3}{1} + \frac{3}{1}$

6. A farmer gave  $\frac{1}{4}$  of a bale of hay to a horse each day on Monday, Tuesday, and Wednesday. Which equation can be used to find the fraction of a bale of hay the farmer gave the horse on these three days?

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

B.  $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{12}$

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

D.  $\frac{1}{7} + \frac{1}{7} + \frac{1}{7} = \frac{3}{21}$



3.3.A- 3.3.C - 3.3.D - representing fractions

Problem Set: 2

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

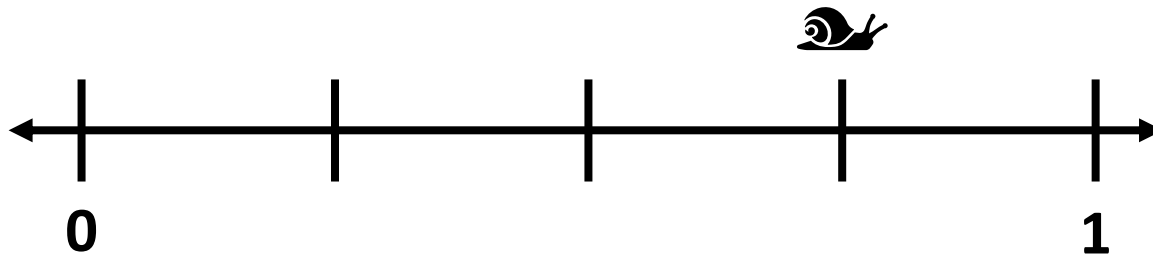


7. Abigail shaded part of the figure shown below. What fraction of the figure is shaded?



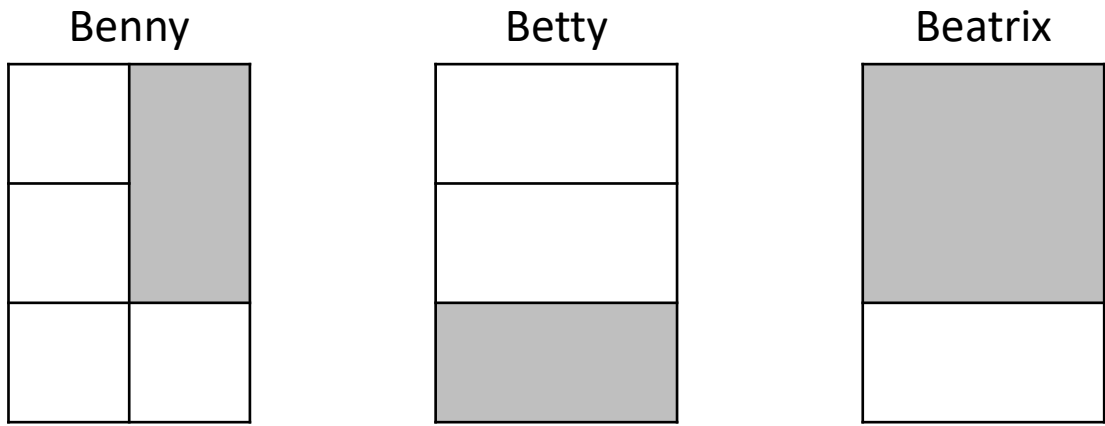
- A.  $\frac{3}{4}$
- B.  $\frac{8}{4}$
- C.  $\frac{4}{8}$
- D.  $\frac{1}{4}$

8. Snappy the Snail started at 0 and is crawling to 1 on the number line. What fraction represents how far he has crawled?



- A.  $\frac{1}{4}$
- B.  $\frac{4}{3}$
- C.  $\frac{3}{4}$
- D.  $\frac{4}{1}$

9. Baily the Baker made three pans of brownies. While he wasn't looking his terrible cousins Benny, Betty and Beatrix ate some of the brownies! The shaded parts of the models shows how much each cousin ate.

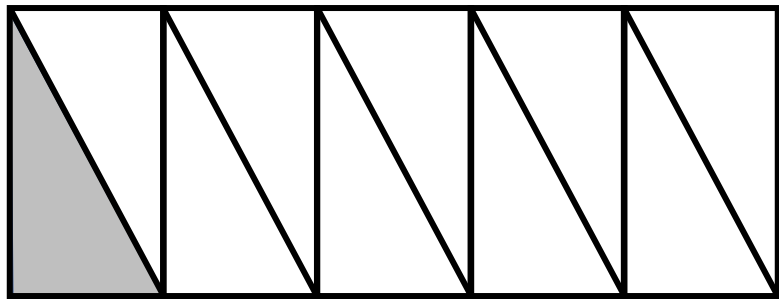


Which statement is true about the fractions of the pans of brownies the cousins ate?

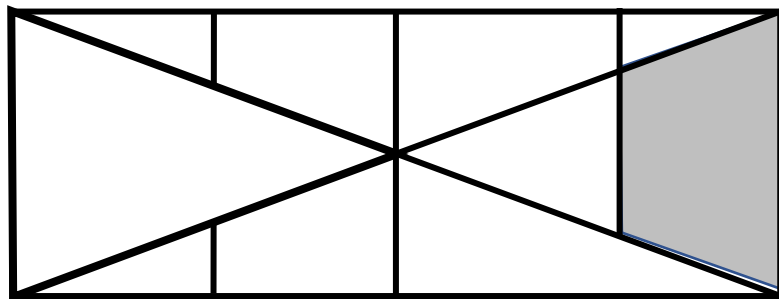
- A. Beatrix ate  $\frac{1}{2}$  of her pan of brownies, because her pan was divided into two pieces, and she ate the larger one.
- B. Benny ate  $\frac{1}{4}$  of his pan of brownies because he ate one piece and there were 4 equal-sized pieces left.
- C. Betty ate  $\frac{1}{3}$  of her pan of brownies, because she ate 1 piece of 3 equal-sized pieces.
- D. Benny ate  $\frac{1}{5}$  of his pan of brownies, because it was cut into 5 pieces, and he ate one of them.

10. Models A and B are shown. Which statement is true?

Model A

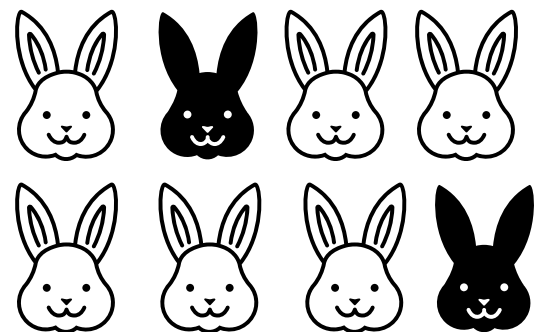


Model B



- A. The shaded parts of Model A and Model B are different sizes, but each model represents the same fraction of the whole.
- B. The total number of parts in Model B is 10, so  $\frac{1}{10}$  of Model B is shaded.
- C. Both models have one part shaded, so both models represent  $\frac{1}{10}$ .
- D. The total number of parts in Model A is 10, and all the parts are equal size, so  $\frac{1}{10}$  of Model A is shaded.

11. Veronica has 8 bunnies. Some are white and some are black.



Which expression represents the fraction of Veronica’s bunnies that are black?

- A.  $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$
- B.  $\frac{2}{8} + \frac{2}{8}$
- C.  $\frac{1}{8} + \frac{1}{8}$
- D.  $\frac{8}{1} + \frac{8}{1}$

12. Deion is reading a book. He read  $\frac{1}{6}$  of the book each day on Monday, Tuesday, Wednesday and Thursday. Which equation can be used to find the fraction of the book Deion read on these four days?

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

B.  $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{4}{16}$

C.  $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{4}{6}$

D.  $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{4}{24}$



3.3.A- 3.3.C - 3.3.D - representing fractions

Problem Set: 3

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

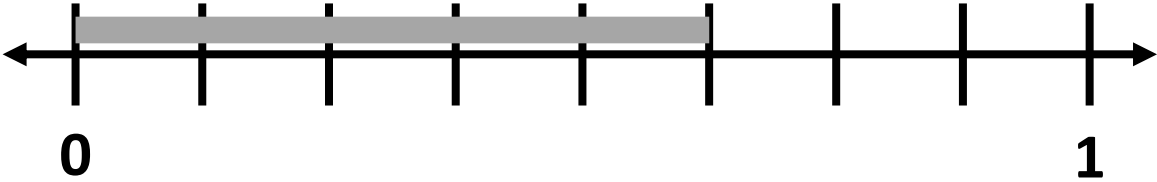


13. What fraction represents the part of this group of tires that is flat?



- A.  $\frac{3}{4}$
- B.  $\frac{1}{2}$
- C.  $\frac{1}{4}$
- D.  $\frac{4}{1}$

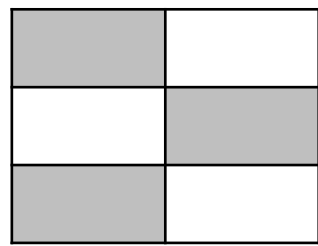
14. What fraction is represented by the shaded bar on the number line below?



- A.  $\frac{3}{8}$
- B.  $\frac{6}{8}$
- C.  $\frac{5}{8}$
- D.  $\frac{8}{5}$

15. Matilda has three equal-sized pieces of cardboard that she has been using for art projects. The shaded part of the models represent how much of each piece of cardboard she has used. Which statement describes the fraction of a piece of cardboard that Matilda has used?

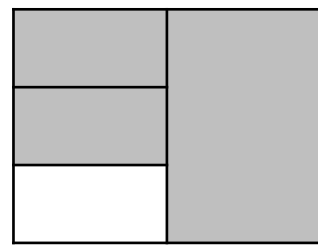
Cardboard 1



Cardboard 2



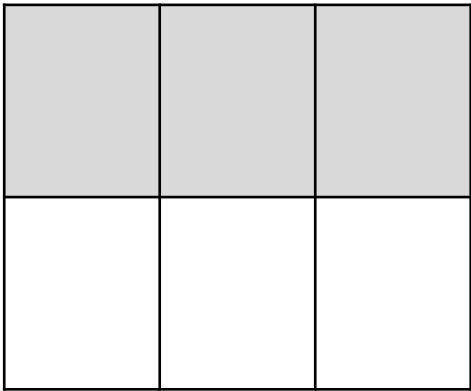
Cardboard 3



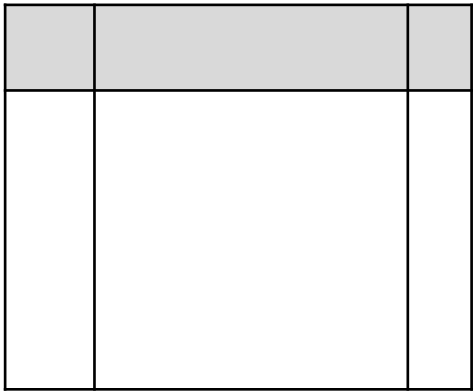
- A.** Matilda has used 3 pieces of Cardboard 1, so she has used  $\frac{3}{3}$  of Cardboard 1.
- B.** Cardboard 1 is divided into 6 equal pieces, and Matilda has used 3 of them, so she has used  $\frac{3}{6}$  of Cardboard 1.
- C.** Cardboard 2 is divided into 2 pieces and Matilda has used 1 of them, so she has used  $\frac{1}{2}$  of Cardboard 2.
- D.** Cardboard 3 is divided into 4 pieces and Matilda has used 3 of them, so she has used  $\frac{3}{4}$  of Cardboard 3.

16. Models R and T are shown. Which statement is true?

Model R

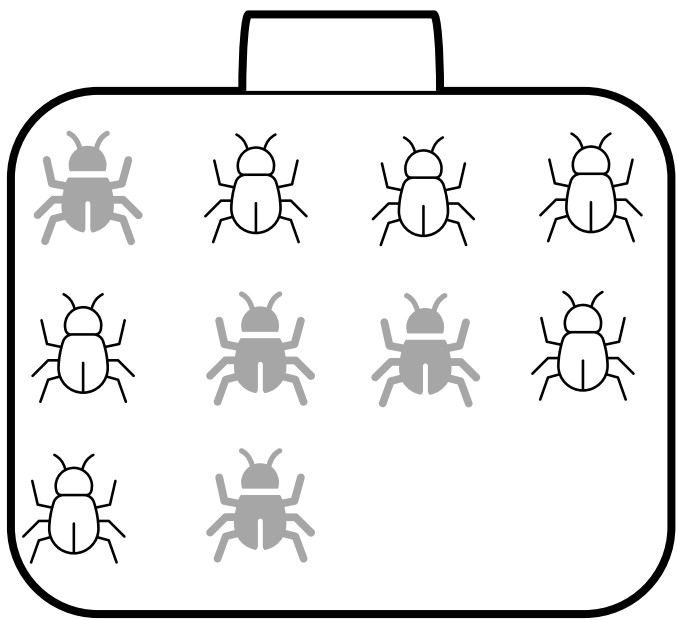


Model T



- A. The shaded parts of Model R and Model T are different sizes, but each model represents the same fraction of the whole.
- B. The total number of parts in Model T is 5, so  $\frac{3}{6}$  of Model T is shaded.
- C. The shaded part of Model R is  $\frac{3}{3}$ , because the parts are all equal in size.
- D. The shaded part of Model T CANNOT be written as the fraction  $\frac{3}{6}$ , because the parts are not all equal in size.

17.Nicky found ten bugs in his lunch box. In the model, the shaded bugs represent dead bugs.



Which expression represents the fraction of the bugs that were dead?

- A.  $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10}$
- B.  $\frac{4}{10} + \frac{4}{10} + \frac{4}{10} + \frac{4}{10}$
- C.  $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10}$
- D.  $\frac{4}{1} + \frac{4}{1} + \frac{4}{1} + \frac{4}{1}$

18. Carlotta the Cavity Queen ate  $\frac{1}{5}$  of a pound of chocolate each meal at breakfast, lunch and dinner today. Which equation can be used to find the fraction of a pound of chocolate that Carlotta ate today during mealtimes?

A.  $\frac{5}{1} + \frac{5}{1} + \frac{5}{1} = \frac{15}{3}$

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

C.  $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{15}$

D.  $\frac{3}{5} + \frac{3}{5} + \frac{3}{5} = \frac{9}{5}$



3.3.A- 3.3.C - 3.3.D - representing fractions

Problem Set: 4

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



19. Which model has exactly  $\frac{1}{2}$  shaded?

Model 1



Model 2



Model 3

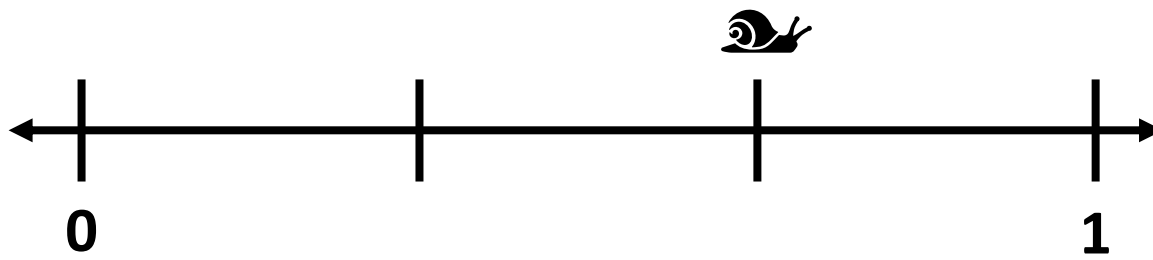


Model 4



- A. Model 1
- B. Model 2
- C. Model 3
- D. Model 4

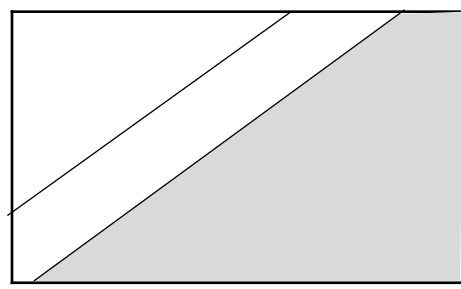
20. Snappy the Snail started at 0 and is crawling to 1 on the number line. What fraction represents how far he has crawled?



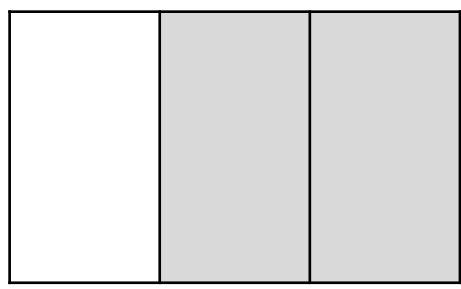
- A.  $\frac{1}{3}$
- B.  $\frac{2}{3}$
- C.  $\frac{3}{2}$
- D.  $\frac{3}{4}$

21. Patricia, Paul and Polly are painters. They are painting three identical walls in a bedroom. The model shows how much of each wall they have each painted. Which statement describes the fraction of a wall that each of them have painted?

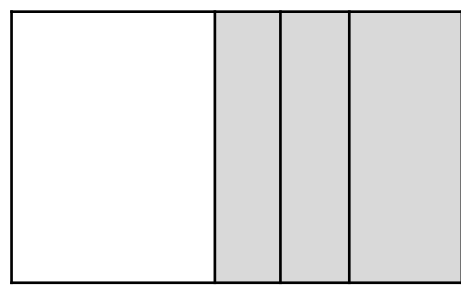
Patricia



Paul



Polly



- A. Patricia has painted  $\frac{1}{3}$  of her wall.
- B. Paul has painted  $\frac{2}{3}$  of his wall.
- C. Polly has painted  $\frac{3}{4}$  of her wall.
- D. Polly has painted  $\frac{3}{3}$  of her wall.

22. Models R and T are shown. Which statement is true?

Model R

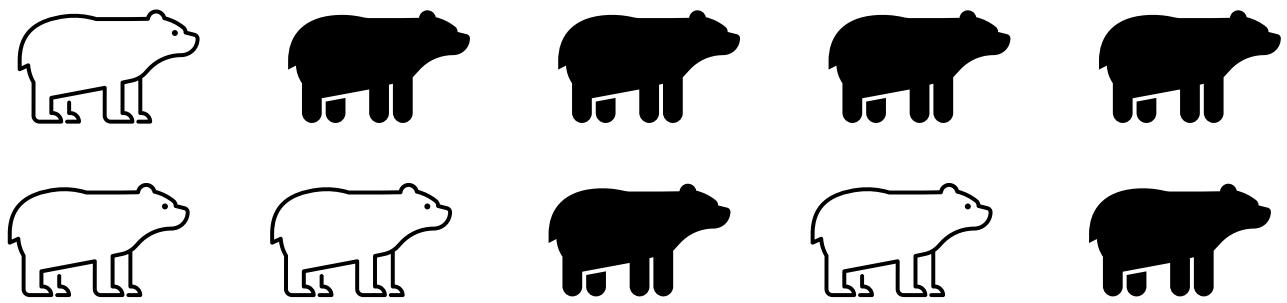


Model T



- A. The fraction shaded in both models is  $\frac{1}{4}$ .
- B. Model R and Model T both show  $\frac{1}{4}$  of the model shaded, but the  $\frac{1}{4}$  shaded in Model T is larger.
- C. The shaded part of Model T is  $\frac{1}{4}$ , because the 4 parts are all equal in size.
- D. The shaded part of Model R is  $\frac{1}{4}$  because the model is divided into 4 parts.

23. There are 10 bears at the zoo. Some are black bears, and some are polar bears



Which expression represents the fraction of the bears at the zoo that are polar bears?

- A.  $\frac{4}{10} + \frac{4}{10} + \frac{4}{10} + \frac{4}{10}$
- B.  $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$
- C.  $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$
- D.  $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10}$

24. Ridiculous Rachel gave  $\frac{1}{8}$  of a box of Possum Chow to her possum, Pooty, each day for one whole week. Which equation can be used to find the fraction of a box of Possum Chow that Rachel fed to Pooty that week?

A.  $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{7}{56}$

B.  $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{7}{8}$

C.  $\frac{7}{8} + \frac{7}{8} + \frac{7}{8} + \frac{7}{8} + \frac{7}{8} + \frac{7}{8} + \frac{7}{8} = \frac{49}{8}$

D.  $\frac{8}{1} + \frac{8}{1} + \frac{8}{1} + \frac{8}{1} + \frac{8}{1} + \frac{8}{1} + \frac{8}{1} = \frac{56}{7}$



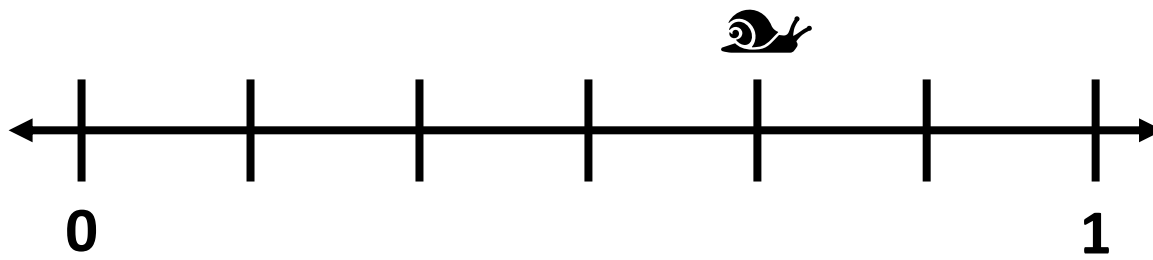
3.3.A- 3.3.C - 3.3.D - representing fractions

Problem Set: 5

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

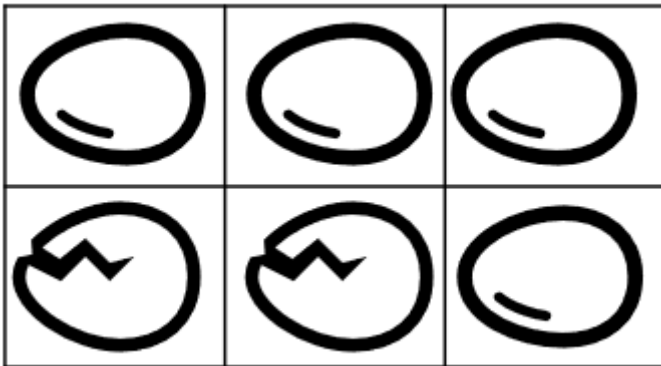


25. Snappy the Snail started at 0 and is crawling to 1 on the number line. What fraction represents how far he has crawled?



- A.  $\frac{6}{4}$
- B.  $\frac{1}{6}$
- C.  $\frac{2}{6}$
- D.  $\frac{4}{6}$

26. What fraction represents the part of the eggs in this carton are broken?



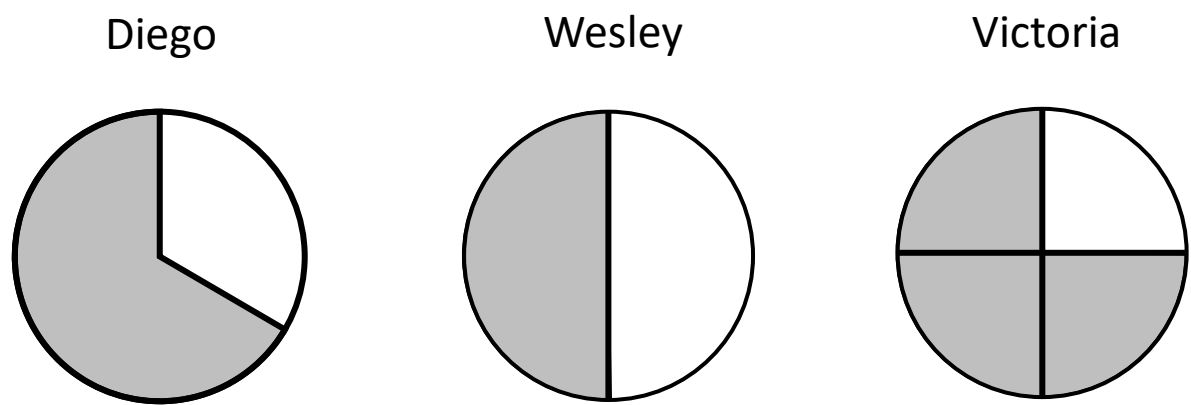
A.  $\frac{4}{6}$

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

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

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

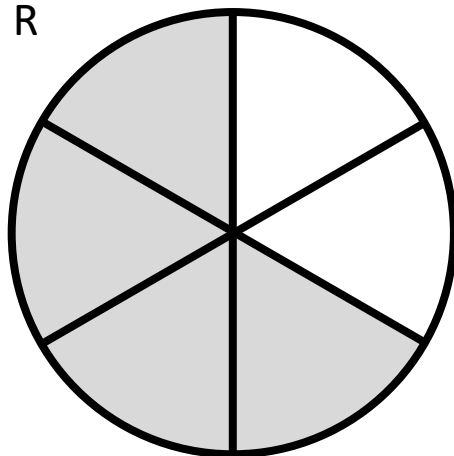
27. Three friends divided pizzas into pieces. The shaded parts of the models represent the pieces that the friends ate. Which statement describes the fraction of a pizza that one of the friends ate?



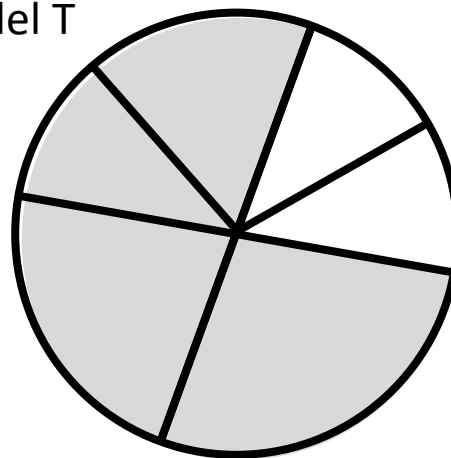
- A. Diego ate  $\frac{1}{2}$  of a pizza, because he ate the largest piece of his 2 pieces.
- B. Wesley ate  $\frac{1}{2}$  of a pizza, because he ate 1 piece of his 2 equal-size pieces.
- C. Victoria ate  $\frac{1}{3}$  of a pizza, because she ate 1 piece and had 3 equal-size pieces left over.
- D. Victoria ate  $\frac{3}{1}$  of a pizza, because she ate 1 piece and had 3 pieces left over.

28. Models R and T are shown. Which statement is true?

Model R

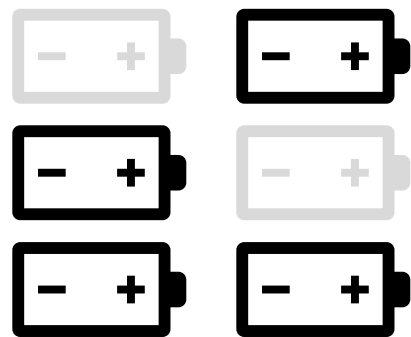


Model T



- A. The shaded parts of Model R and Model T are different sizes, but each model represents the same fraction of the whole.
- B. The shaded part of Model T can be written as the fraction  $\frac{4}{6}$ , because Model T is divided into 6 parts and 4 of them are shaded.
- C. The shaded part of Model R can be written as the fraction  $\frac{4}{6}$ , because Model R is divided into 6 equal pieces and 4 of them are shaded.
- D. The total number of parts in Model T is 6, so  $\frac{6}{4}$  of Model T is shaded.

29. Daniel tested 6 brand new batteries, but some of them did not work. The gray batteries in the model represent the ones that did not work.



Which expression represents the fraction of Daniel’s batteries that did not work?

- A.  $\frac{1}{6} + \frac{1}{6}$
- B.  $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6}$
- C.  $\frac{2}{6} + \frac{2}{6}$
- D.  $\frac{6}{1} + \frac{6}{1}$

30. Jasmine has been saving up money for a long trip. She spent  $\frac{1}{5}$  of her money the first week of her trip,  $\frac{1}{5}$  of her money the second week, and  $\frac{1}{5}$  of her money the third week. Which equation can be used to find the fraction of Jasmine's money that she spent during the first 3 weeks of her trip?

A.  $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{15}$

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

C.  $\frac{5}{1} + \frac{5}{1} + \frac{5}{1} = \frac{15}{3}$

D.  $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{1}{15}$



The numerator is on top. The denominator is on bottom.

The denominator tells you the size of the fraction. The numerator is the counter, it tells you how many.

The denominator is determined by the number of parts.

All the parts have to be equal-sized.