Unit: Fractions: Multiplying & Dividing with Fractions
Lesson: 5.3.I - Use Models and Pictures to Multiply Fractions and Whole Numbers
Problem Set 1

Tip: $\frac{4}{6}$X 24 is the same as 4 x$\frac{1}{6}$ x 24. Sometimes it is easier to figure out the problem if you think of it this way: 4 x $\left(\frac{1}{6}\text{ x }24\right)$. Which would be 4 x $(24 \div 6)$ or $4 \text{ x } 4 = 16$.

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1. Weather delayed $\frac{4}{6}$ of the 24 flights departing from an airport. All the departing flights are listed in the chart.

Departing Flights

Flight #48	Flight #111	Flight #90	Flight #38
Flight #112	Flight #222	Flight #134	Flight #46
Flight #23	Flight #564	Flight #56	Flight #116
Flight #12	Flight #72	Flight #765	Flight #677
Flight #17	Flight #86	Flight #89	Flight #422
Flight #65	Flight #329	Flight #88	Flight #499

How many flights departing from the airport were delayed by weather?

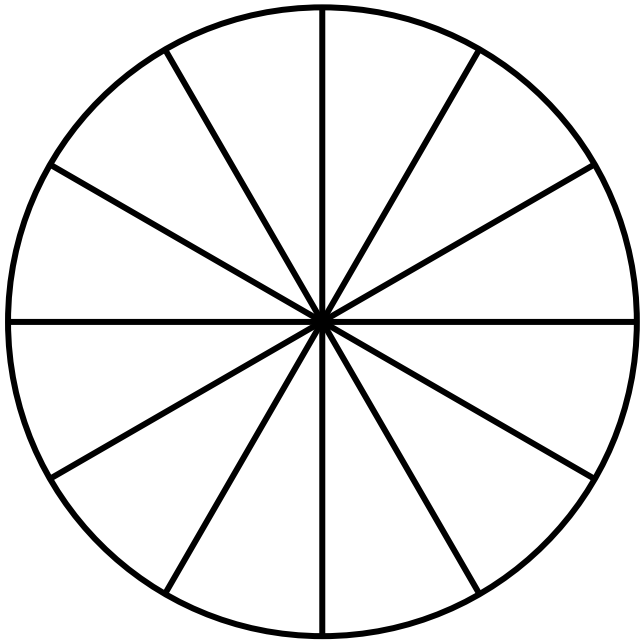
A. 18

B. 4

C. 16

D. 8

2. Stinky Stan ordered his favorite pizza, garlic with sardines, sliced into 12 slices. But, this time he asked for $\frac{2}{3}$ of the pizza to also have jalapeños.



How many slices of pizza will have jalapeños?

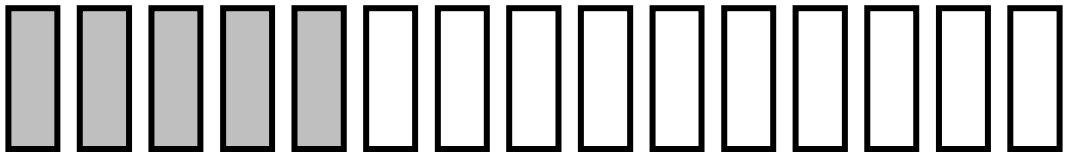
A. 6

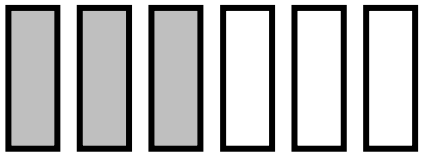
B. 4

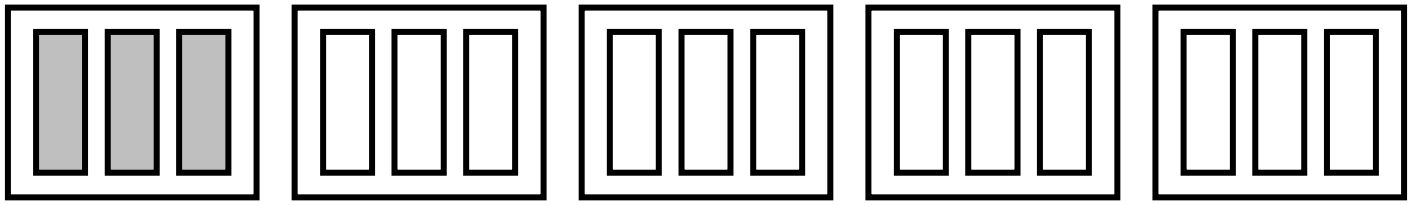
C. 8

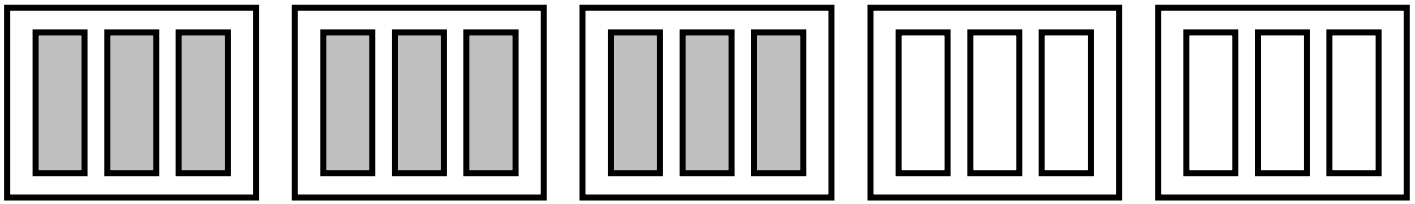
D. 9

3. Which model represents $\frac{3}{5}$ of 15?

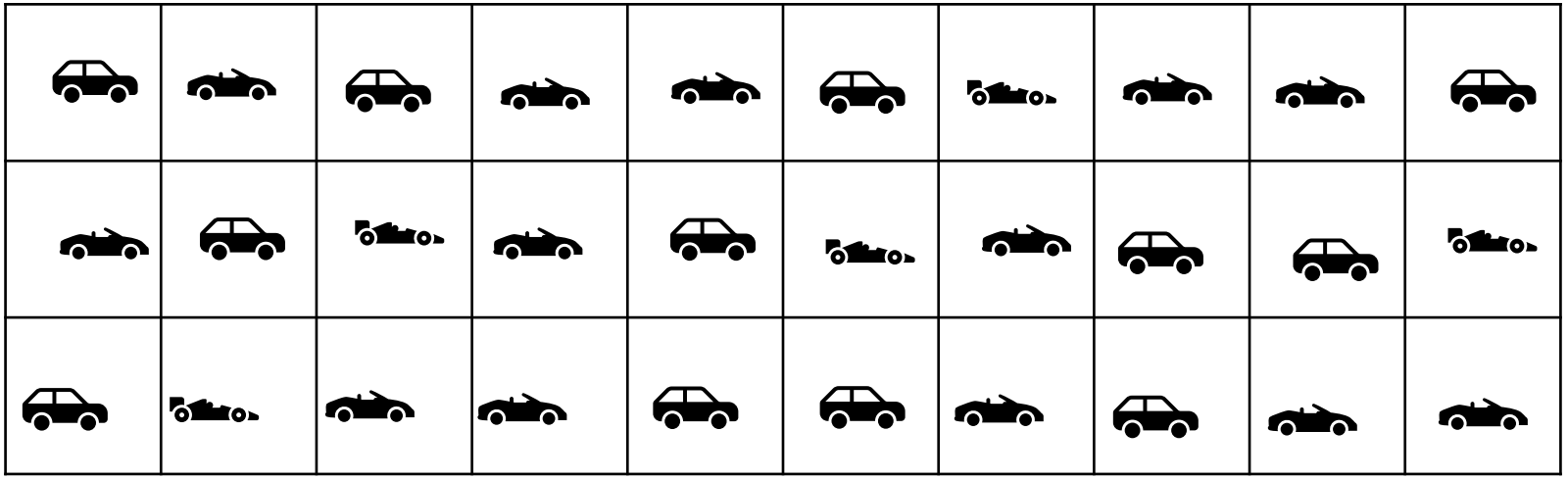
A. 

B. 

C. 

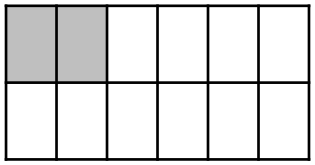
D. 

4. Toni owns an auto dealership. Of the 30 cars on her lot, she decided to put $\frac{3}{10}$ of them on sale for one day at 20% off. How many cars did she put on sale?

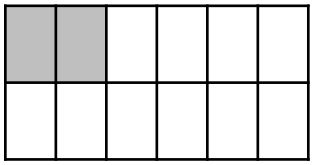


5. Miranda made a pan of brownies for her 4 children to share. The shaded parts of the model represent the fraction of the pan of brownies each child ate.

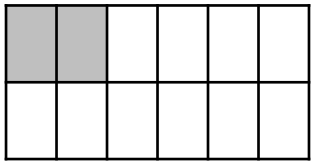
Felicia



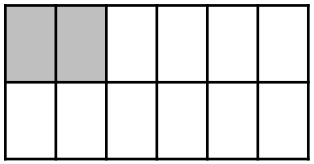
Randy



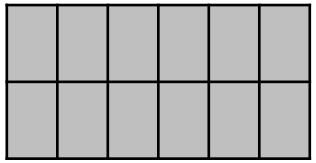
Charles



Sierra



Key



= pan of brownies

What expression can be used to determine the fraction of the brownies that the children have eaten?

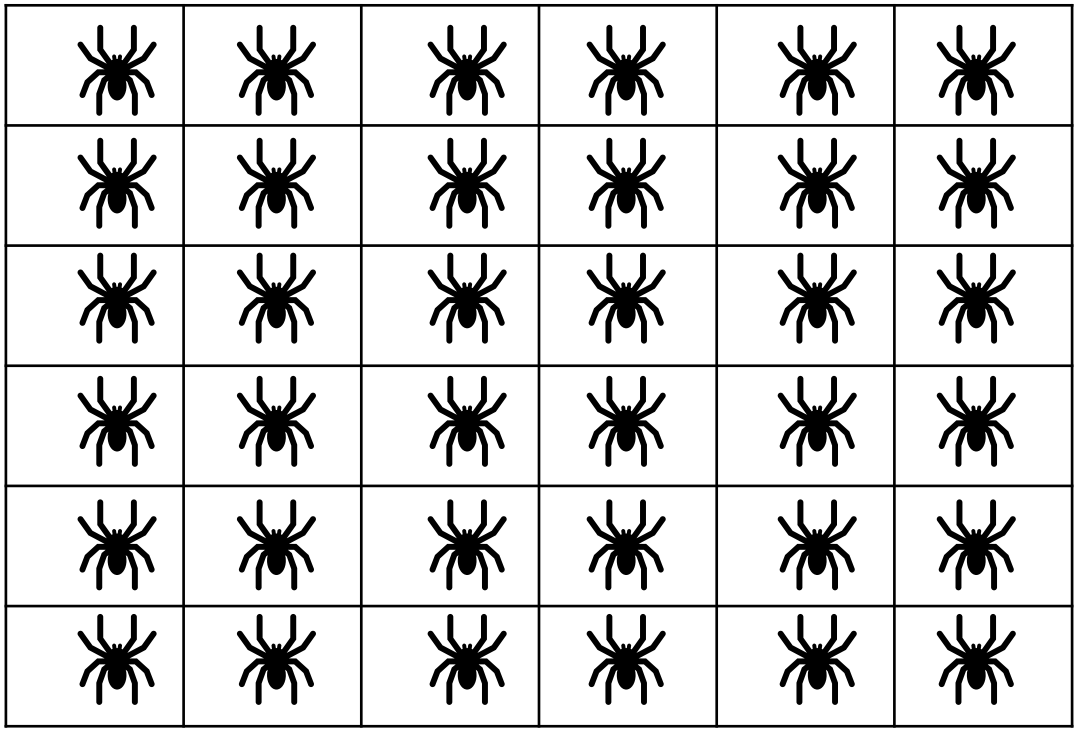
A. $4 \times \frac{2}{12}$

C. $4 \times \frac{1}{2}$

B. $4 + \frac{2}{12}$

D. $2 \times \frac{12}{12}$

6. Wanda the Witch has a tray of spiders to sell at the Witch Supply store. She noticed that ¾ of the 36 spiders are black widow spiders. How many of the spiders are black widows?



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Problem Set 2

Tip: $\frac{4}{6}$X 24 is the same as 4 x$\frac{1}{6}$ x 24. Sometimes it is easier to figure out the problem if you think of it this way: 4 x $\left(\frac{1}{6}\text{ x }24\right)$. Which would be 4 x $(24 \div 6)$ or $4 \text{ x } 4 = 16$.

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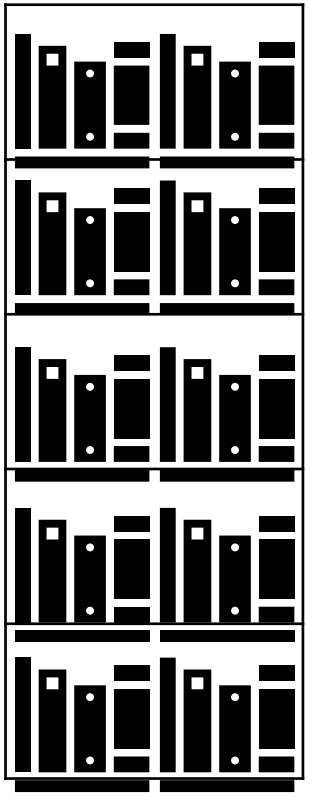
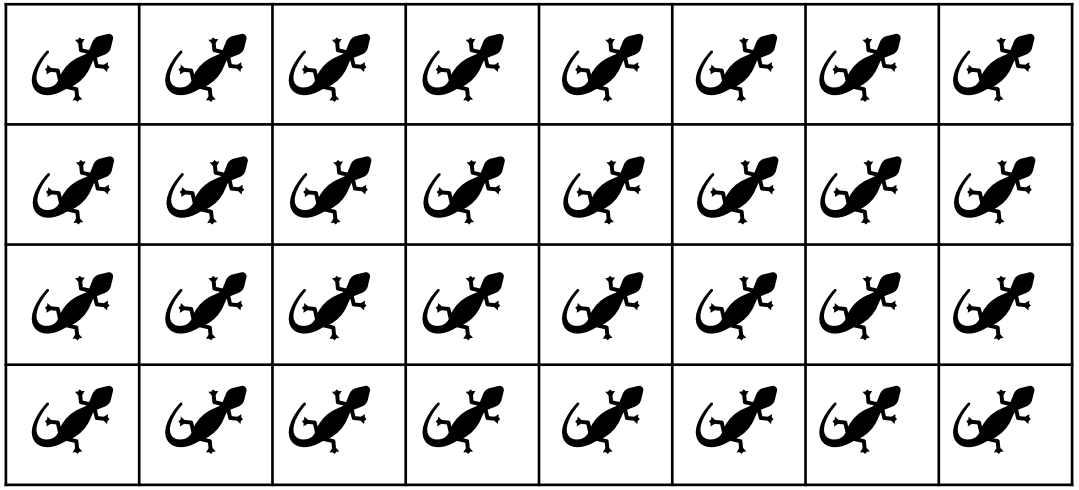
7. Bertha has filled up the front shelf of her bookstore with 40 books. She noticed that $\frac{3}{5}$ of the books are non-fiction. How many of the books are non-fiction?



8. Wanda the Witch just got in 32 lizards to sell at the Witch supply store. She was pleased to see that ¾ of them were the kind that squirt poison out of their eyes. How many of the new lizards are poison-squirters?



9. Our school is having some trouble with the flu. Last week $\frac{2}{5}$ of the 30 students in Mr. Ruiz's class were absent. The names of all the students in the class are listed below.

Mr. Ruiz's class

Monica	Everly	John	Rosalita	Marcy
Isabel	Avery	Krista	Samuel	Millicent
Neveah	Ottis	Barney	Tucker	Mabel
Veronica	Percy	Lester	Caleb	James
Jeffrey	Fiona	Morris	Ulysses	Dominic
Maxwell	Q'ianna	Grace	Herbert	Oliver

How many of Mr. Ruiz students were absent?

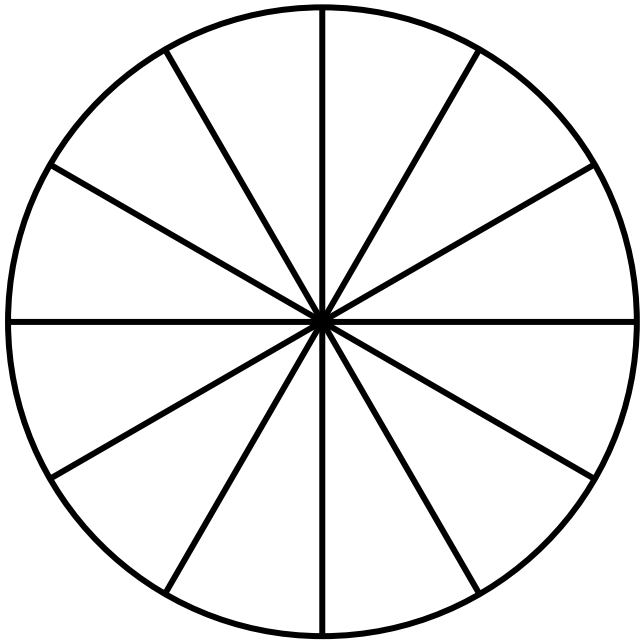
A. 12

B. 6

C. 10

D. 8

10. Disgusting Donald ordered his favorite pizza, tuna and chocolate, sliced into 12 slices. But, this time he asked for $\frac{3}{4}$ of the pizza to also have ketchup.



How many slices of pizza will have ketchup?

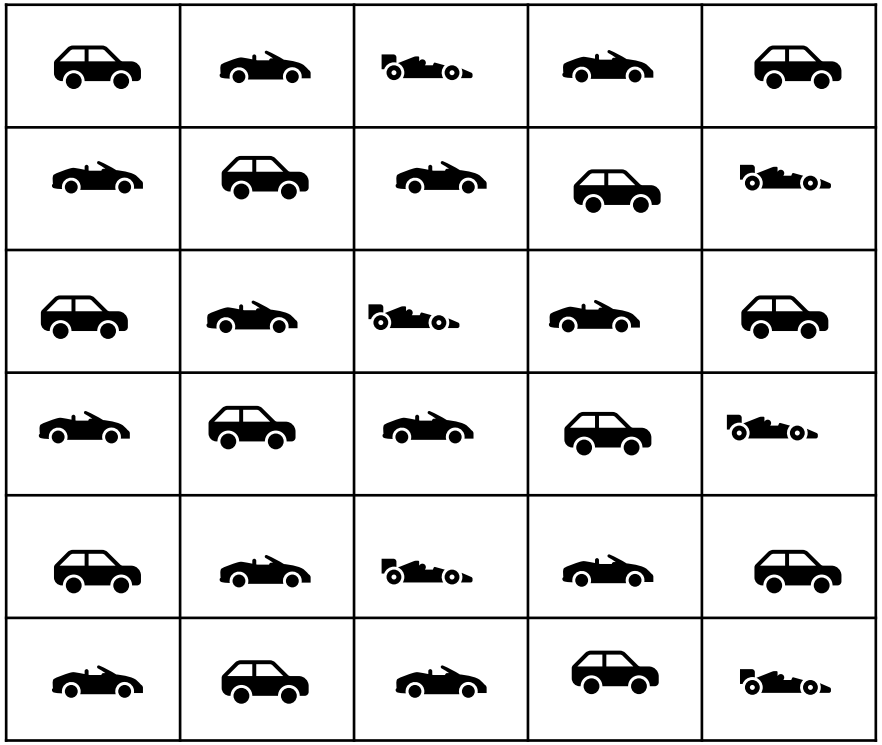
A. 6

B. 4

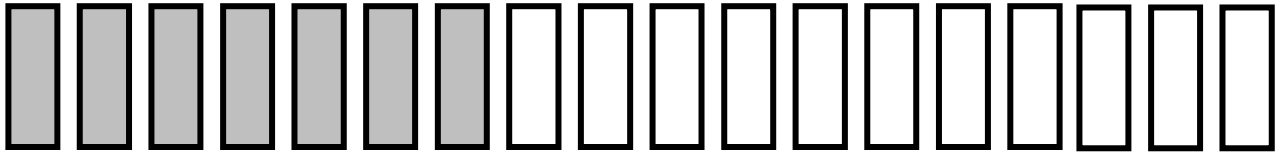
C. 8

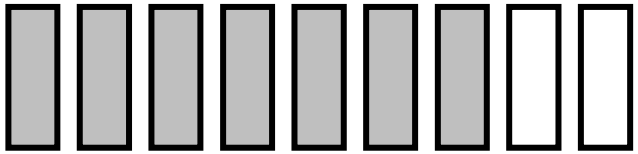
D. 9

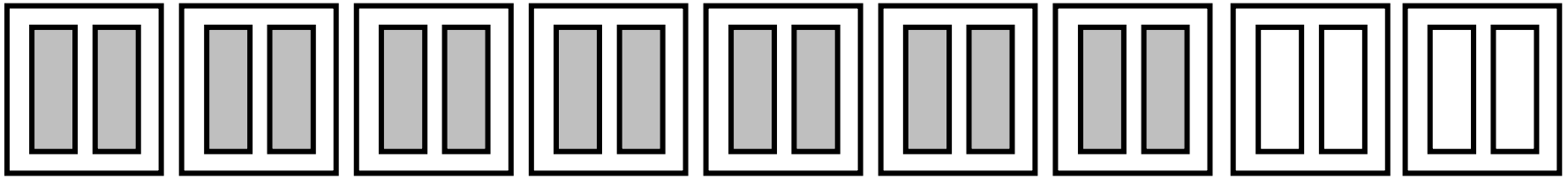
11. Toni owns an auto dealership. Of the 30 cars on her lot, $\frac{3}{5}$ are new and the rest are used. How many of the cars on Toni's lot are new?

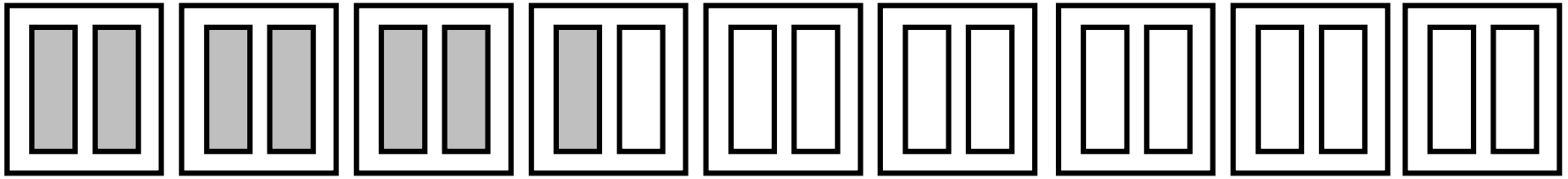


12. Which model represents $\frac{7}{9}$ of 18?

A. 

B. 

C. 

D. 

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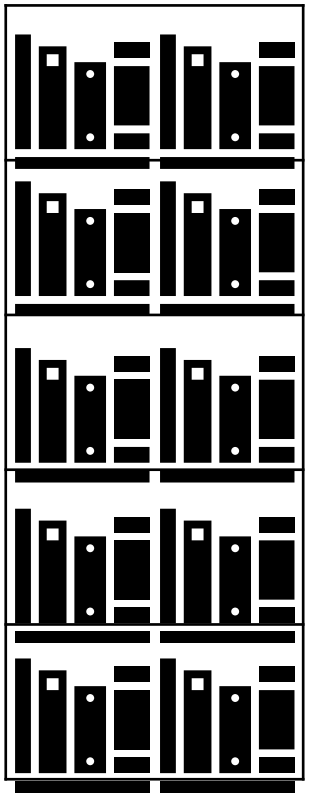
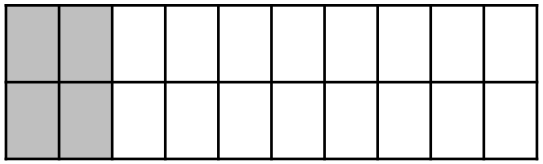
13. Bertha has filled up the window display shelf of her bookstore with 40 books. She made sure that $\frac{4}{10}$ of the books are books for kids. How many of the books on the display shelf are books for kids?

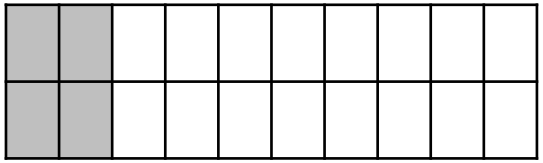


14. Joseph is required to work 20 hours a week. The shaded parts of the model represent the hours Joseph has worked so far this week.

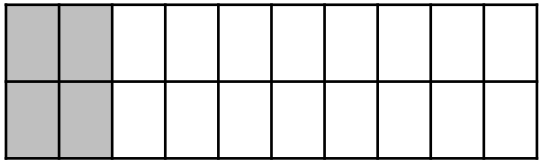
Monday

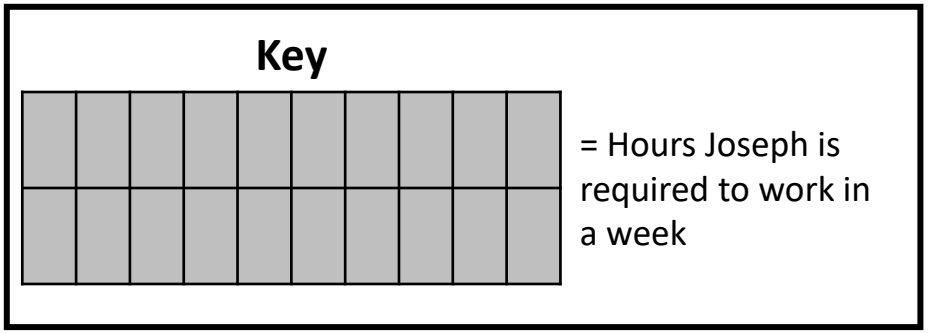


Tuesday



Wednesday





What expression can be used to determine the part of his required hours he has already worked?

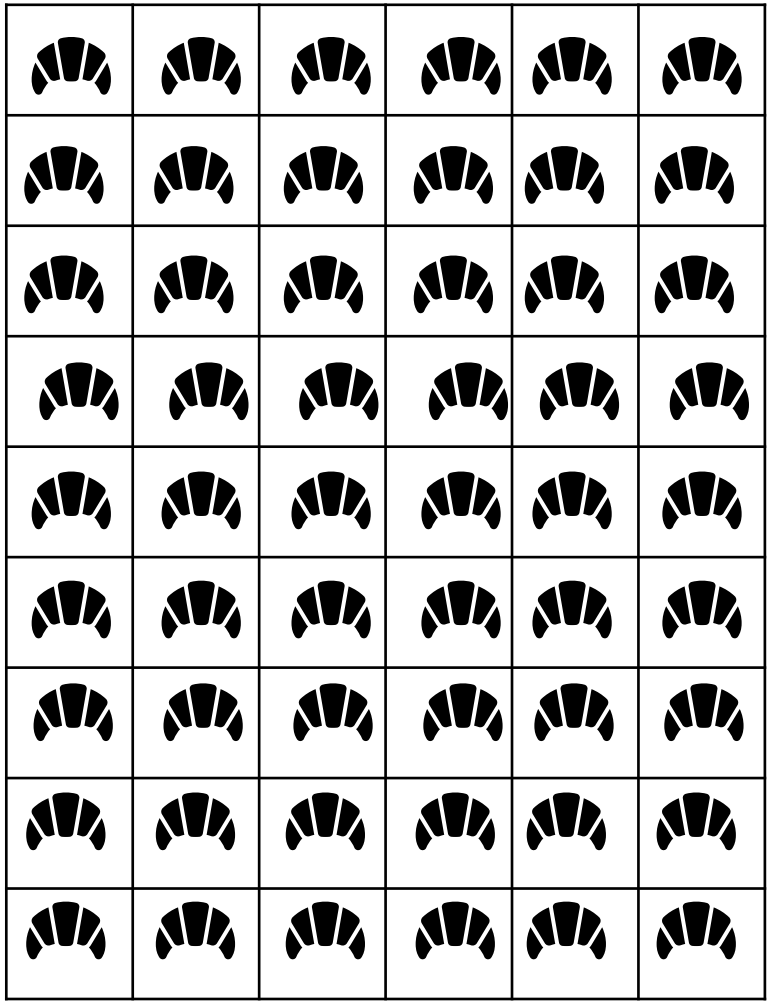
A. $3 \times \frac{4}{20}$

C. $3 \times \frac{20}{4}$

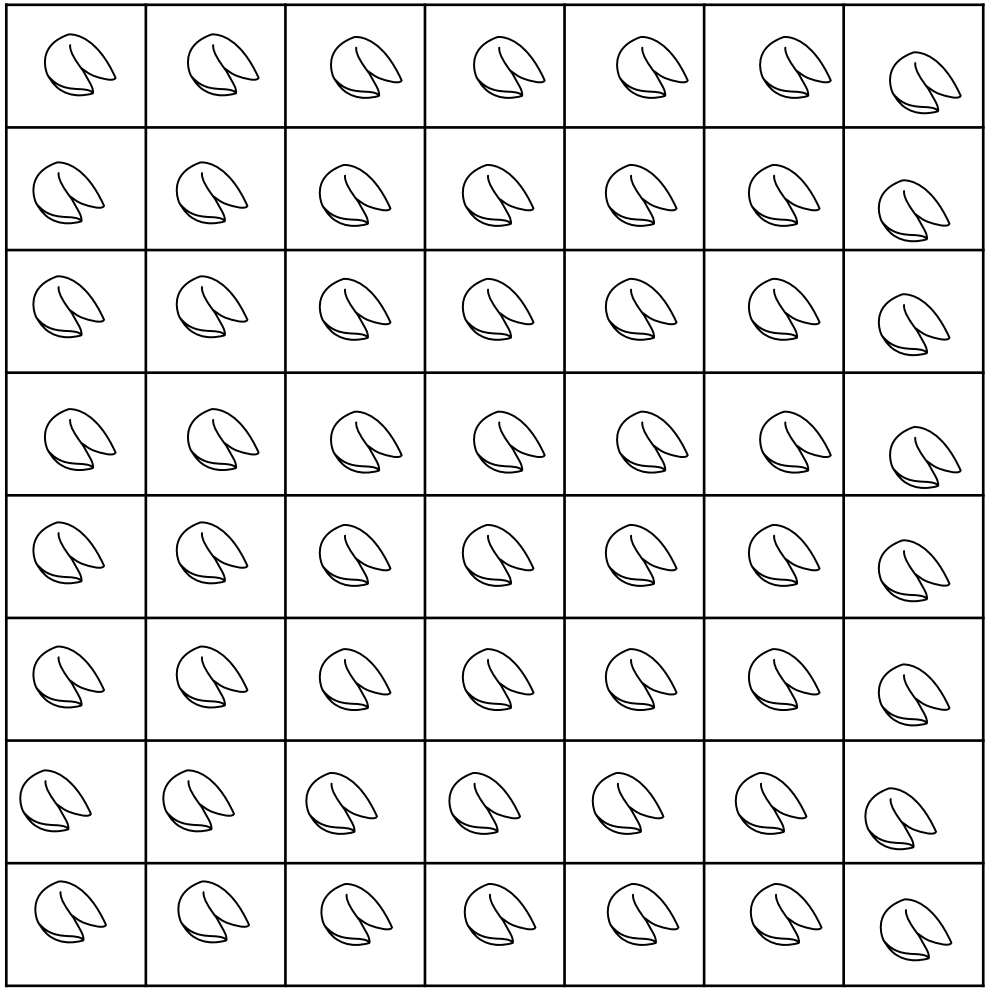
B. $3 + \frac{4}{20}$

D. $20 \times \frac{3}{4}$

15. Barney's Bakery is having a special on pastries today. Barney has baked up 54 delicious pastries. He made sure that $\frac{4}{9}$ of the pastries have peach filling. How many pastries have peach filling?



16. Felicia's Fortune Cookie Factory made 56 fortune cookies today. She made sure that $\frac{5}{8}$ of the fortune cookies had good fortunes. How many of the cookies have good fortunes?



17. Sheila is in charge of the 28 puppies at the pound. She soon discovered that $\frac{5}{7}$ of the puppies are female and the rest are males.

Puppies at the Pound

Luna	Bella	Daisy	Lucy
Bailey	Coco	Lola	Nala
Sadie	Stella	Penny	Molly
Maggie	Rosey	Zoey	Ruby
Lilly	Nova	Ellie	Roxy
Charlie	Max	Milo	Cooper
Rocky	Buddy	Bear	Teddy

How many of the puppies are females?

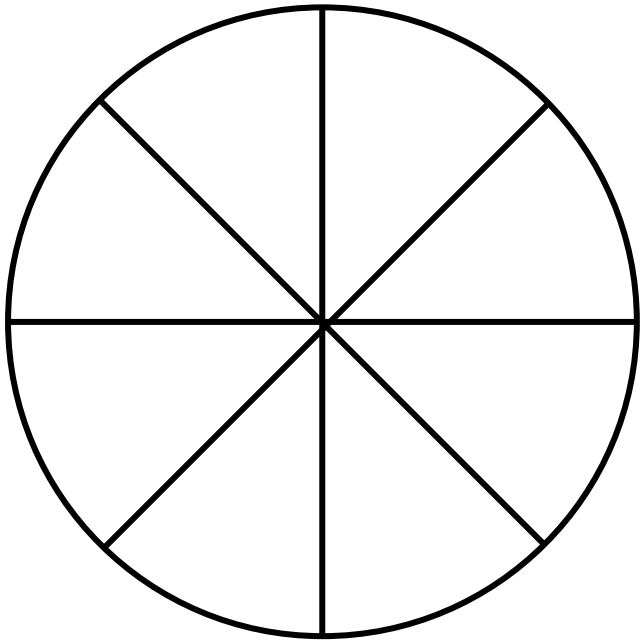
A. 18

B. 20

C. 16

D. 8

18. Ridiculous Rachel ordered her cat's favorite pizza, sardine and tuna, sliced into 8 slices. But, this time she asked for $\frac{3}{4}$ of the pizza to also have strawberries.



How many slices of pizza will have strawberries?

A. 10

B. 8

C. 6

D. 4

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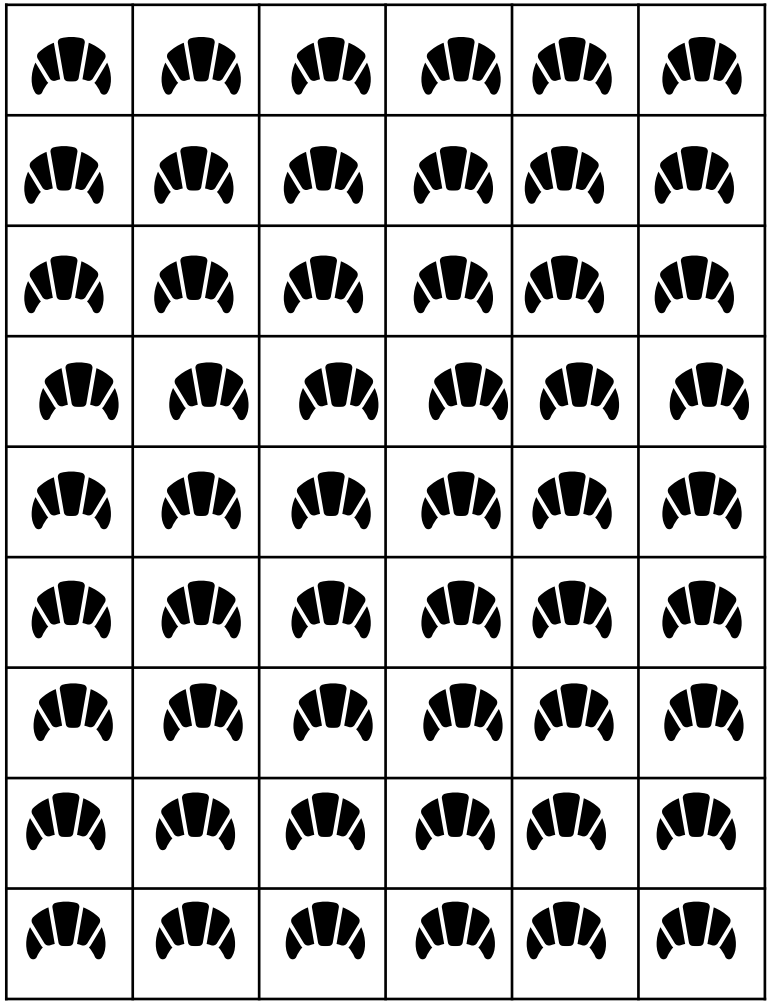
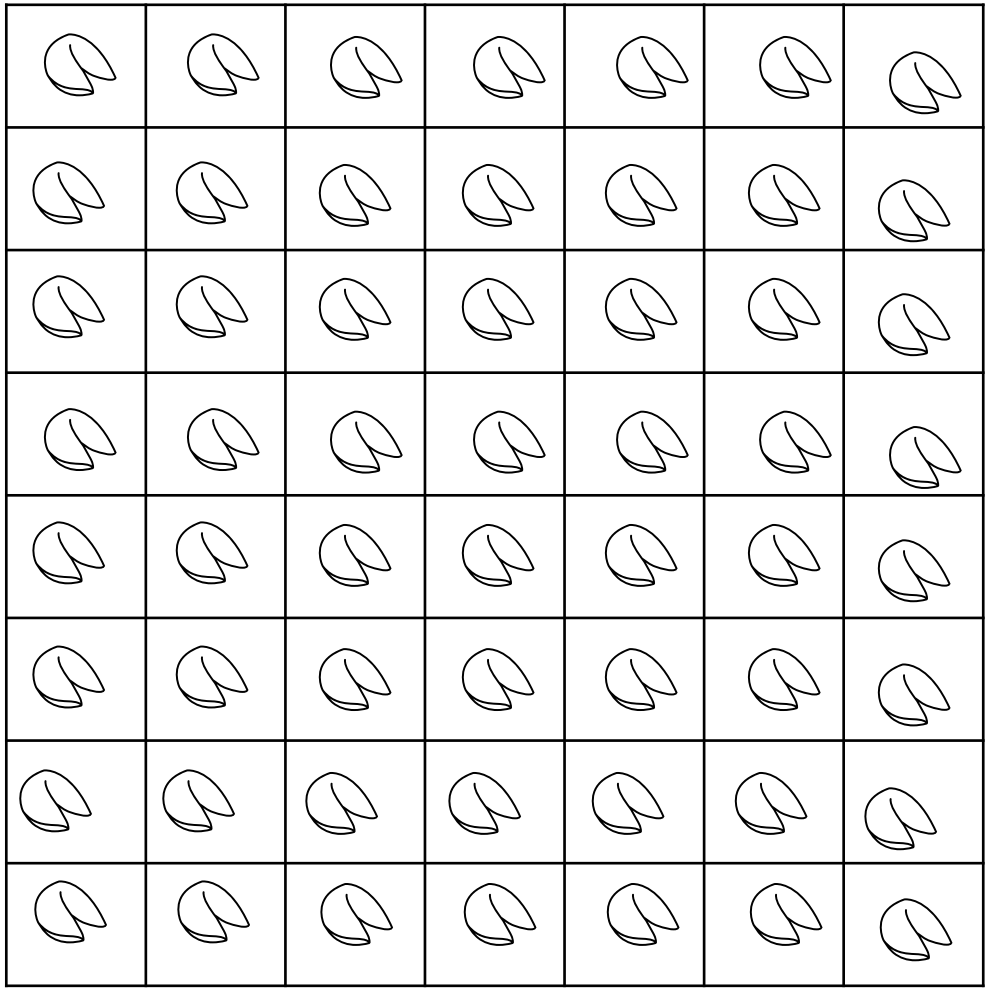
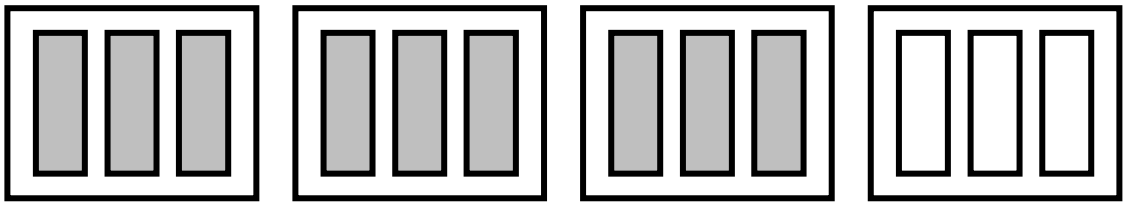
19. Barney's Bakery is having a special on pastries today. Barney has baked up 54 delicious pastries. Barney doesn't like peanut butter, but he knows some people do, so he made $\frac{2}{9}$ of the pastries with peanut butter filling. How many pastries have peanut butter filling?

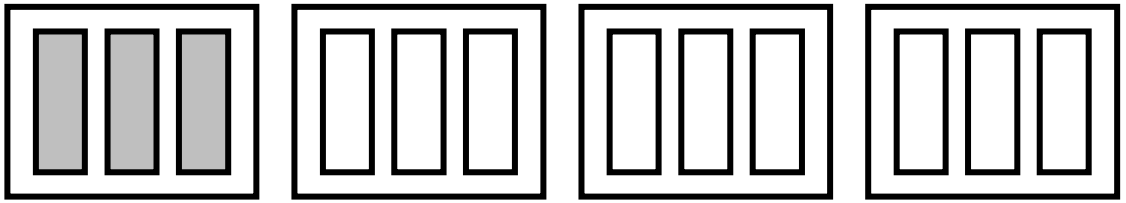


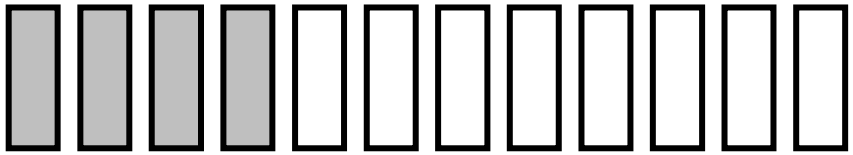
20. Felica's Fortune Cookie Factory made 56 fortune cookies today. She was in a bad mood, so she made sure that $\frac{6}{7}$ of the fortune cookies had bad fortunes. How many of the cookies have bad fortunes?

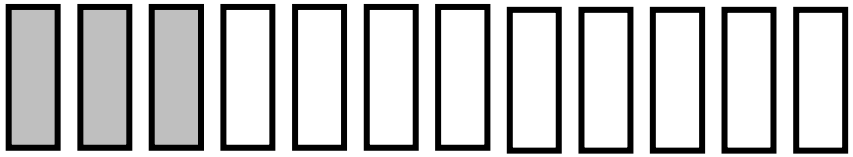


21. Which model represents $\frac{3}{4}$ of 12?

A. 

B. 

C. 

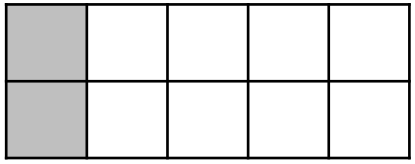
D. 

22. Toni owns an auto dealership. Her goal is to sell 10 cars per week. She has 4 salespeople working for her. The shaded parts of the model represent the fraction of the goal that each salesperson has sold this week so far.

Martin

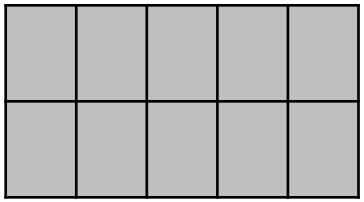
Ramona

Tammy



Roland

Key



= Goal for the week

What expression can be used to determine the fraction of the goal that the salespeople have sold so far altogether?

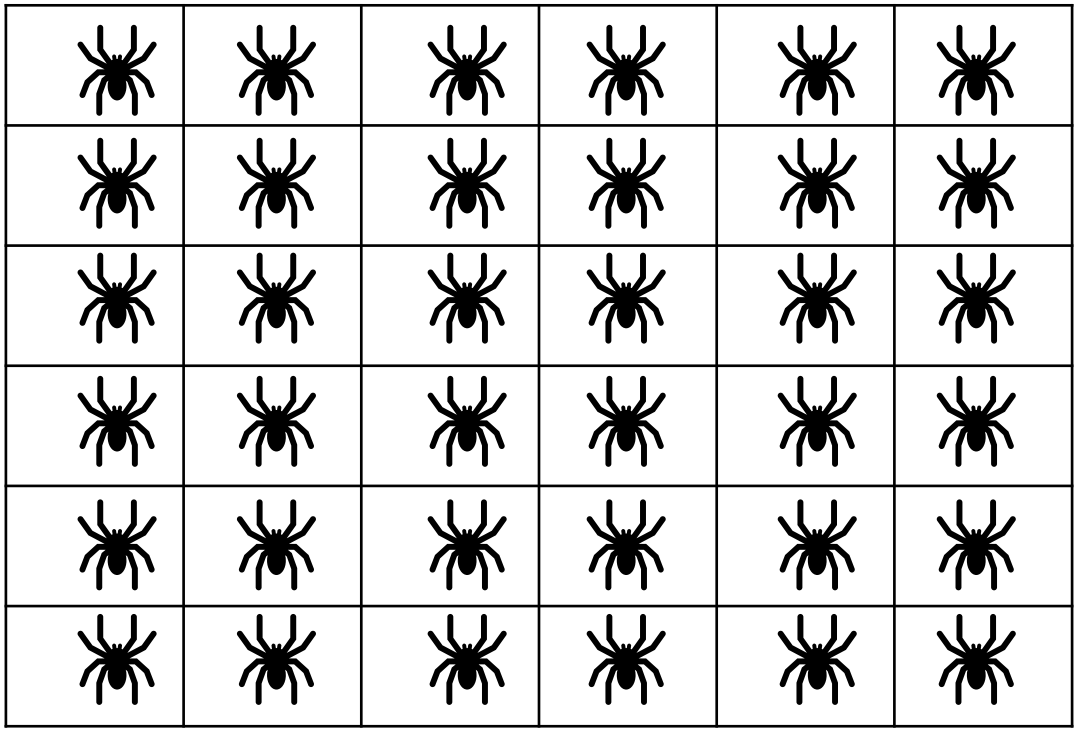
A. $4 \text{ X } \frac{2}{10}$

C. $4 + \frac{4}{10}$

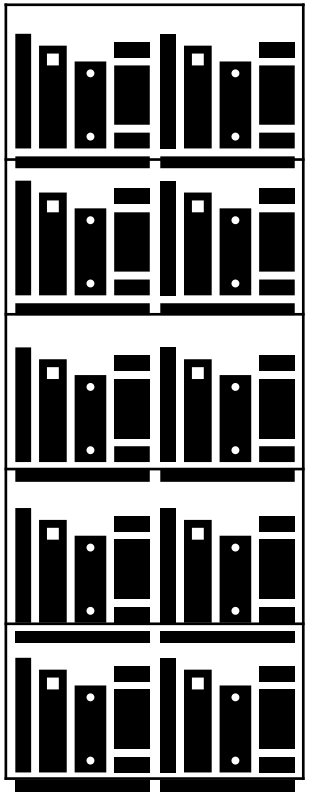
B. $10 \text{ X } \frac{4}{10}$

D. $4 + \frac{2}{10}$

23. Wanda the Witch has a tray of spiders to sell at the Witch Supply Store. She noticed that $\frac{5}{6}$ of the 36 spiders are black widow spiders. How many of the spiders are black widows?



24. Bertha has filled up clearance sale shelf of her bookstore with 40 books. She noticed that $\frac{3}{8}$ of the books are mysteries. How many of the books are mysteries?



Unit: Fractions: Multiplying & Dividing with Fractions
Lesson: 5.3.I - Use Models and Pictures to Multiply Fractions and Whole Numbers
Problem Set 5

Tip: $\frac{4}{6}$X 24 is the same as $4 \text{ x} \frac{1}{6} \text{ x } 24$. Sometimes it is easier to figure out the problem if you think of it this way: $4 \text{ x } \left(\frac{1}{6} \text{ x } 24\right)$. Which would be 4 x $(24 \div 6)$ or $4 \text{ x } 4 = 16$.

1 C. 16	**2** C.8	**3** D	**4** 9	**5** A	**6** 27
7 24	**8** 24	**9** A. 12	**10** D. 9	**11** 24	**12** C
13 16	**14** A	**15** 24	**16** 35	**17** B.20	**18** C.6
19 12	**20** 48	**21** A	**22** A	**23** 30	**24** 15
25 C.18	**26** 24	**27** A.10	**28** B	**29** D	**30** 45

25. Mica is helping with the 48 puppies at the pound. He was surprised to find out that $\frac{3}{8}$ of the puppies are chihuahuas.

Puppies at the Pound

Luna	Bella	Daisy	Pepper	Mia	Lucy
Bailey	Coco	Lola	Riley	Willow	Nala
Sadie	Stella	Penny	Millie	Sophie	Molly
Maggie	Rosey	Zoey	Harley	Duke	Ruby
Lilly	Nova	Ellie	Zeus	Blue	Roxy
Charlie	Max	Milo	Jack	Loki	Cooper
Rocky	Buddy	Bear	Leo	Oliver	Teddy
Oreo	Gracie	Hazel	Tucker	Koda	Toby

How many of the puppies are chihuahuas?

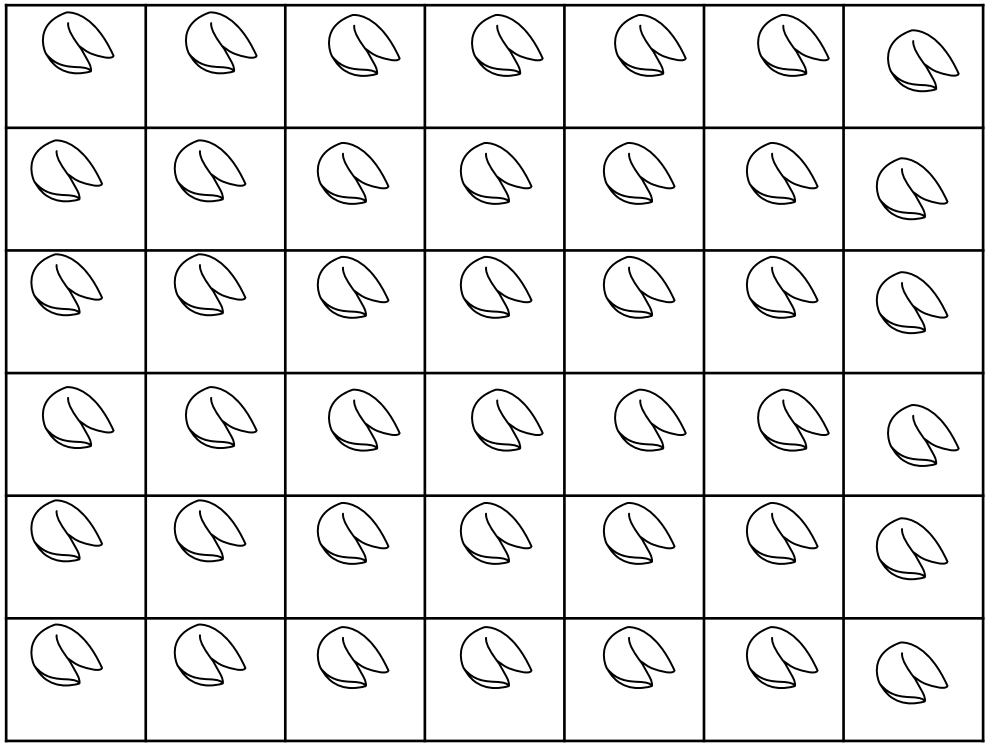
A. 8

B. 16

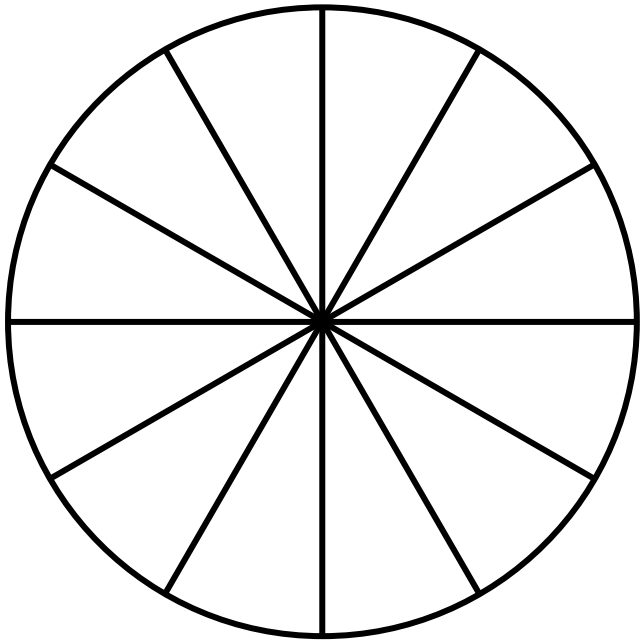
C. 18

D. 20

26. Felica's Fortune Cookie Factory made 42 fortune cookies today. Unfortunately, she found out later that $\frac{4}{7}$ of the fortune cookies had no fortunes inside! How many of the cookies did not have a fortune inside?



27. The Queen of Hasmuchia ordered her favorite pizza, caviar and truffles, sliced into 12 slices. But, this time he asked for $\frac{5}{6}$ of the pizza to also have lobster.



How many slices of pizza will have lobster?

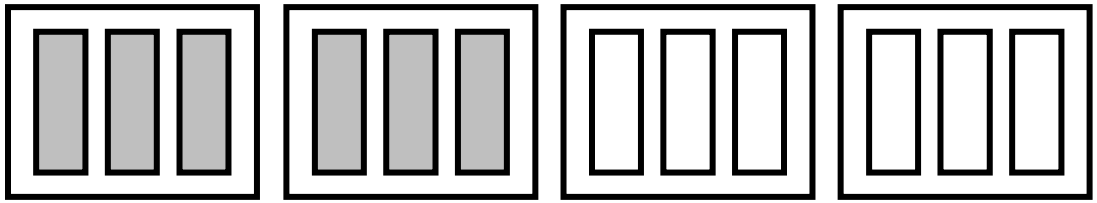
A. 10

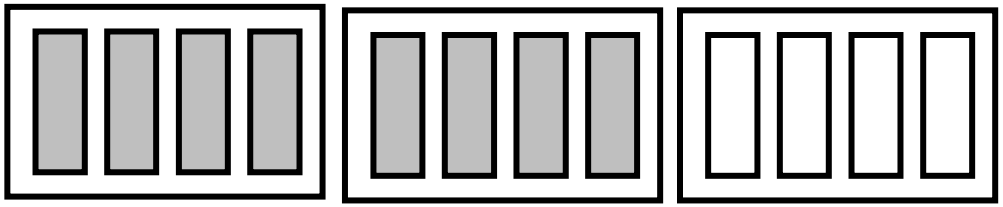
B. 8

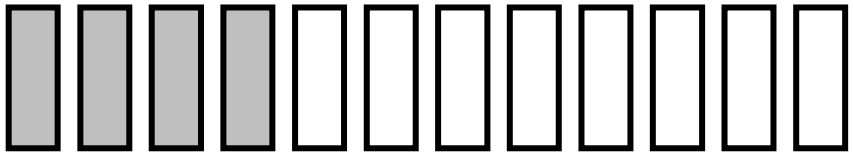
C. 6

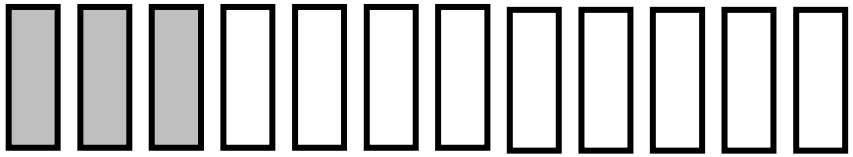
D. 4

28. Which model represents $\frac{2}{3}$ of 12?

A. 

B. 

C. 

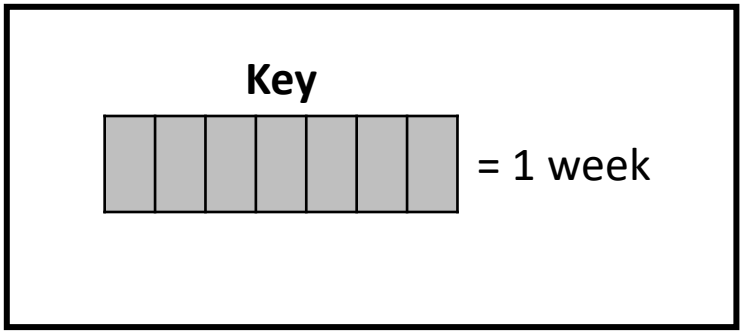
D. 

29. Darenda worked for 3 weeks. The shaded parts of the model represent the fraction of each week she worked from her home office.

Week 1

Week 2

Week 3

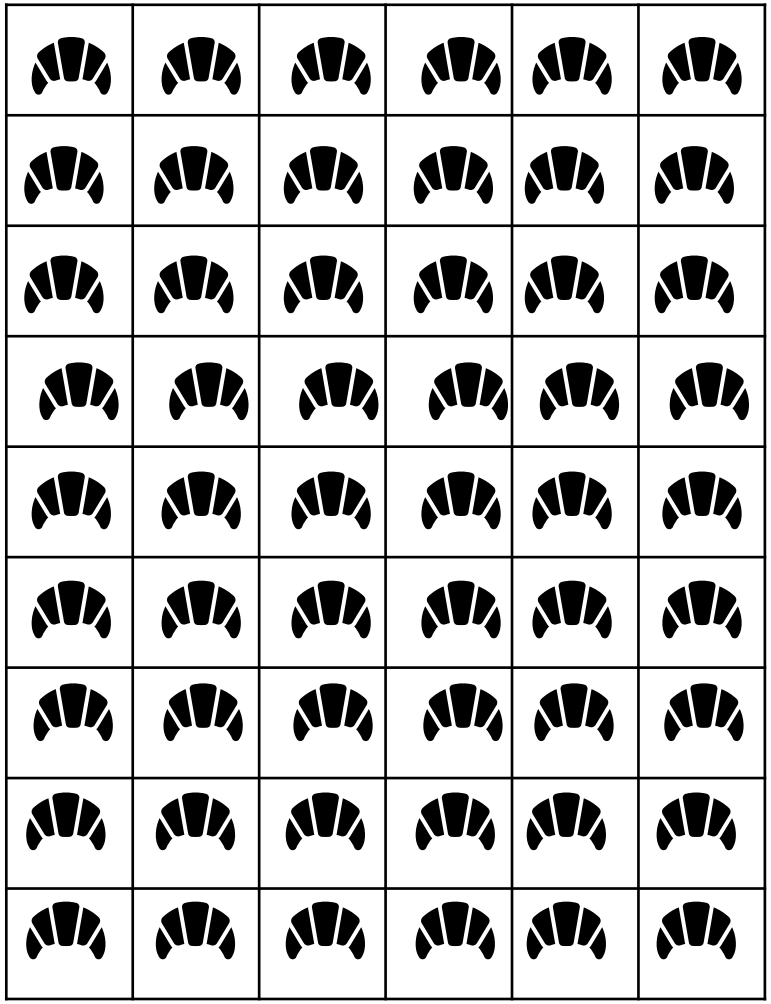


What expression can be used to determine the number of weeks Darenda worked from her home office over these 3 weeks?

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

C. $3 \times \frac{3}{4}$

B. $3 + \frac{3}{7}$

D. $3 \times \frac{3}{7}$

30. Barney's Bakery is having a special on pastries today. Barney has baked up 54 delicious pastries. He made sure that $\frac{5}{6}$ of the pastries have chocolate filling. How many pastries have chocolate filling?