

4.5.A – All Operations - Represent Multi-Step Word Problems

Problem Set: 1

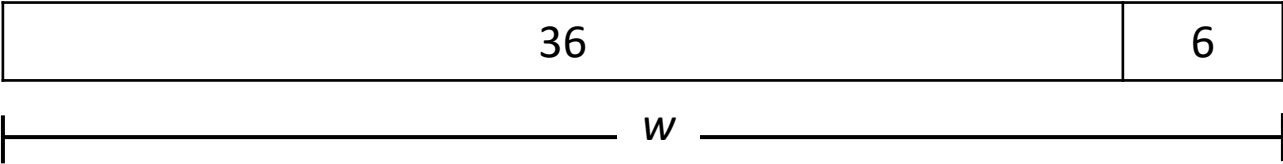
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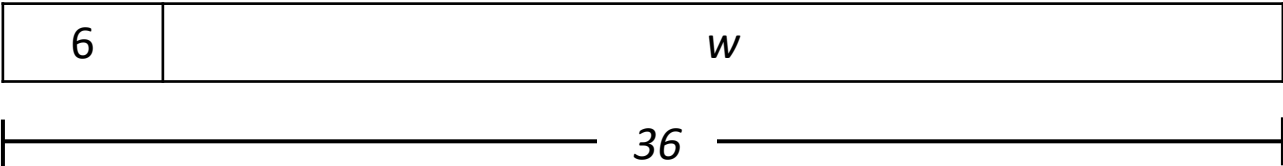
1. Alexa had a total of 36 bottles of water. She drank half of the bottles of water last week. Alexa will drink the remaining water bottles during the next 6 days. She will drink the same number of bottles each day.

Which strip diagram shows a way to find w , the number of water bottles Alexa will drink during each of the next 6 days?

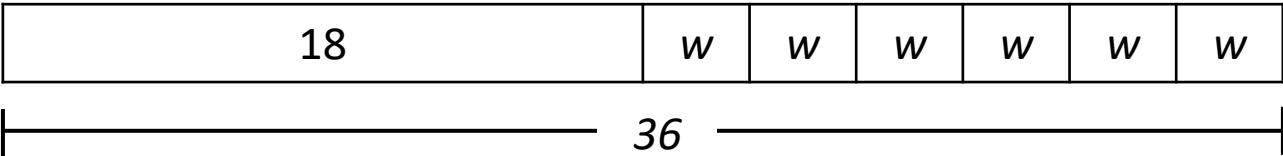
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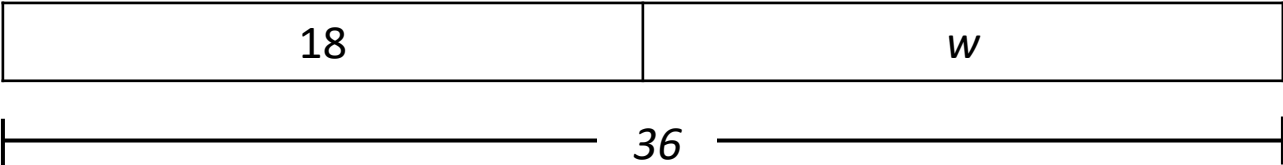
B.



C.



D.



2. Each Saturday Mr. Franklin teaches 3 piano lessons at his music school and 4 piano lessons in students’ homes.

- For each lesson at his music school, he charges \$15.
- For each lesson in a student’s home, he charges \$20.

Which set of equations can be used to find M, the amount of money in dollars Mr. Franklin earns from piano lessons each Saturday?

A. $15 \times 4 = 60$
 $20 \times 3 = 60$
 $60 + 60 = m$

B. $15 \div 3 = 5$
 $20 \div 4 = 5$
 $5 + 5 = m$

C. $15 \times 3 = 45$
 $20 \times 4 = 80$
 $80 - 45 = m$

D. $15 \times 3 = 45$
 $20 \times 4 = 80$
 $45 + 80 = m$

3. Darren drank 3 glasses of water every day for 6 days. Each glass contained 12 fl oz of water.

Which equation represents w , the total amount of water in fluid ounces that Darren drank during these 6 days?

A. $3 + 6 + 12 = w$

B. $12 \times 6 = w$

C. $3 \times 6 \times 12 = w$

D. $3 \times 12 \div 6 = w$

4. A business earned \$96 for one job and \$78 for a second job. The money was divided equally among the 3 partners who own the business.

Which strip diagram represents m , the amount of money each partner received?

A.

m	m	m
\$78		\$96

B.

m					
\$78	\$96	\$78	\$96	\$78	\$96

C.

m	m	m
\$96		

D.

m	
\$78	\$96

5. Garrison had a total of 48 eggs. He ate half of the eggs last week. Garrison will eat the remaining eggs during the next 6 days. He will eat the same number of eggs each day.

Draw a strip diagram that you could use to e , the number of eggs Garrison will eat during each of the next 6 days. Then use it to solve for e .

6. Gabriella had 45 pairs of socks. Sofia had twice as many pairs of socks as Gabriella. Sofia then bought 5 more pairs of socks. Write an equation can be used to find s , the number of pairs of socks Sofia has now. Then solve the equation.

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7. It took Ian three years to collect 25,413 aluminum cans to recycle. In the first year he collected 8,917 cans, and in the second year he collected 7,639 cans.

Which equation can be used to find x , the number of cans Ian collected in the third year?

A. $x = 25,413 - 8,917 - 7,639$

B. $x = 25,413 + 8,917 + 7,639$

C. $x = 8,917 + 7,639$

D. $x = 8,917 - 7,639$

8. A factory makes 400 refrigerators every day. The factory makes 125 more stoves per day than refrigerators. Which equation can be used to find x , the total number of refrigerators and stoves the factory makes in one day?

A. $x = 400 + 400 + 125$

B. $x = 400 + 125$

C. $x = 400 + 400 - 125$

D. $x = 400 - 125$

9. Jaylen is trying to earn money to buy 3 tickets to a baseball game. Each ticket costs \$30. He made \$65 mowing yards last weekend. Which strip diagram could Jaylen use to figure out m how much more money he needs to earn to buy the tickets?

A.

\$65	m
\$30	

B.

m	m	m
\$65		\$30

C.

m	
\$65	\$35

D.

\$30	\$30	\$30
\$65		m

10. Jacob has 4 sacks of jellybeans. Each sack contains 100 jellybeans. He shared 275 jellybeans with his friends at school. Which diagram shows a way to find j , the number of jellybeans that Jacob has left?

A.

100	100	100	100
-----	-----	-----	-----

j

B.

100	100	100	100
-----	-----	-----	-----

j

275

C.

275	275	275	275
-----	-----	-----	-----

j

100

D.

j	100	100	100
-----	-----	-----	-----

275

11. Christian had 24 pieces of gum. He chewed half of the gum last week. He needs to make the remaining gum last for the next 4 days. He will chew the same number of pieces each day.

Draw a strip diagram that shows a way to find g , the number of pieces of gum Christian will chew during each of the next 4 days. Then use it to solve for g .

12. Kade had 6 books. Andrew had 3 times as many books as Kade. Then Andrew bought 4 more books. Write an equation can be used to find b , the number of books that Andrew has now. Then solve the equation.

4.5.A – All Operations - Represent Multi-Step Word Problems

Problem Set: 3

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13. Mark had 45 football cards. Josh had twice as many football cards as Mark. Josh then bought 5 more football cards. Which equation can be used to find f , the number of football cards Josh has now?

A. $2 \times 45 + 5 = f$

B. $2 \times 45 - 5 = f$

C. $2 + 45 \times 5 = f$

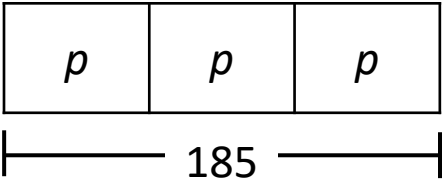
D. $2 + 45 + 5 = f$

14. Sabra read a total of 185 pages in three days.

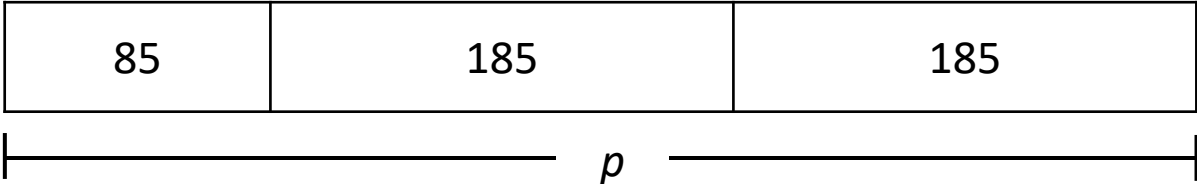
- On the first day, she read 85 pages.
- On the second and third days, she read the same number of pages.

Which diagram shows a way to find p , the number of pages Sabra read on the third day?

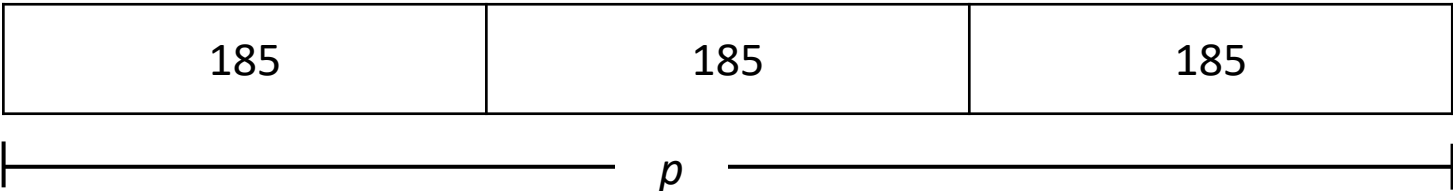
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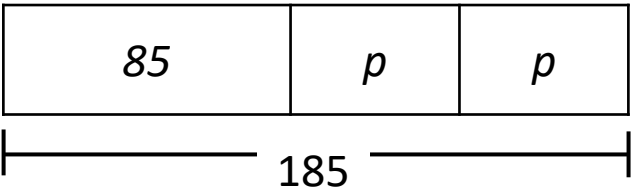
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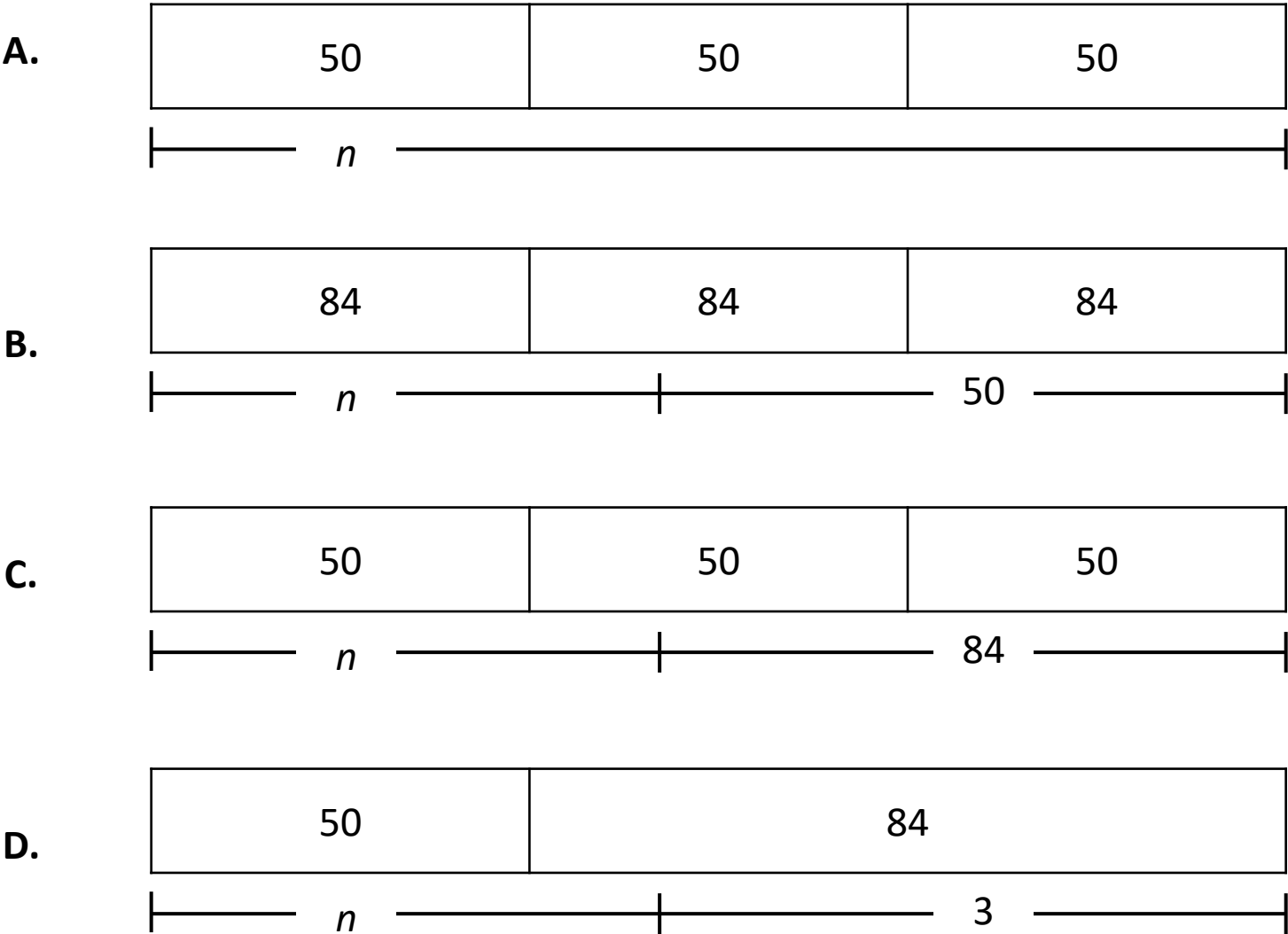


D.



15. Abigail has 3 boxes of nails. Each box contains 50 nails. She used 84 nails to build a doghouse for her dog Mr. Flippy.

Which diagram shows a way to find n , the number of nails Abigail has left?



16. Landon walks dogs every Friday to earn money. Last Friday he walked 7 big dogs and 5 little dogs.

- He charges \$5 for big dogs.
- He charges \$2 for little dogs.

Which set of equations can be used to find m , the amount of money Landon earned walking dogs last Friday?

A. $7 \times 5 = 35$
 $5 \times 2 = 10$
 $35 + 10 = m$

B. $7 + 5 = 12$
 $5 + 2 = 7$
 $12 + 7 = m$

C. $7 \times 5 = 35$
 $5 \times 2 = 10$
 $35 - 10 = m$

D. $7 - 5 = 2$
 $5 - 2 = 3$
 $2 \times 3 = 6$

17. Mia bought 120 pieces of candy in one bag and 80 pieces of candy in another bag. She will divide the candy equally among her 5 children.
- Draw a strip diagram that shows how you could figure out c , the number of pieces of candy each child will receive. Then use the diagram to solve for c .

18. Elijah had 20 marshmallows. Martin had 10 times as many marshmallows as Elijah and then Martin ate 12 of his marshmallows. Write an equation can be used to find m , the number of marshmallows that Martin has now. Then solve the equation.

4.5.A – All Operations - Represent Multi-Step Word Problems

Problem Set: 4

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19. Isis drank 2 small cartons of milk every day for 6 days. Each carton contained 8 fluid ozs of milk.

Which equation represents m , the amount of milk in fluid ounces that Isis drank during these 6 days.

A. $2 + 8 + 6 = m$

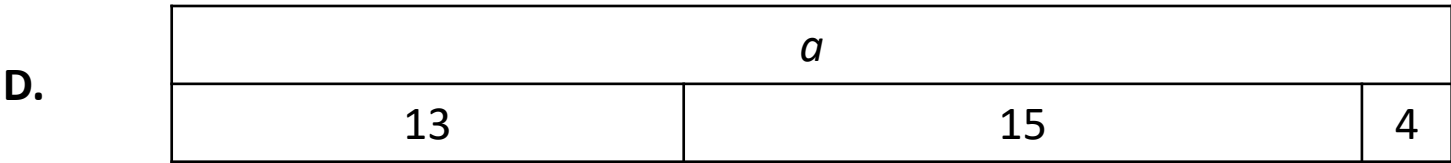
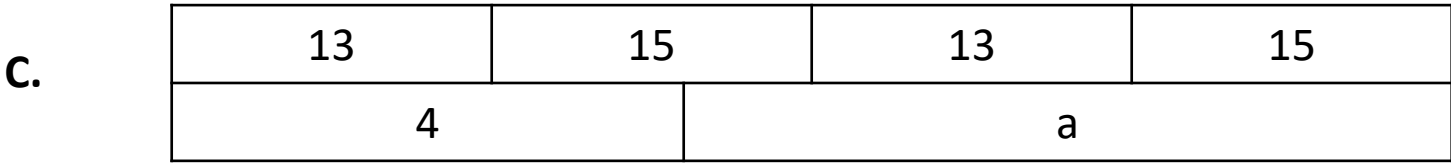
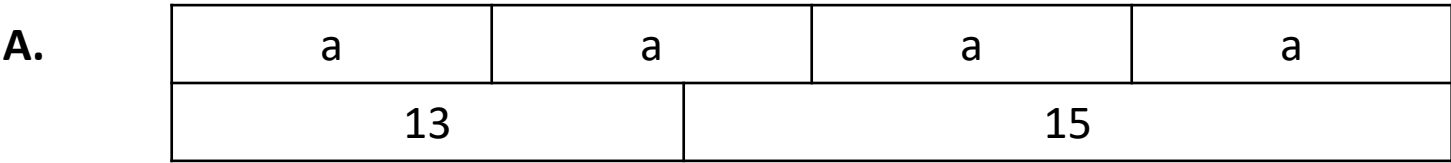
B. $8 \times 6 = m$

C. $2 \times 8 - 6 = m$

D. $2 \times 8 \times 6 = m$

20. Grandma bought two sacks of apples. One had 15 apples in it and the other had 13 apples in it. She is going to use the apples to make 4 apple pies. She plans to put the same number of apples in each pie.

Which strip diagram represents a , the number of apples grandmom will put in each pie?



21. It took Kimber three years to collect 2,875 pennies. In the first year he collected 1,010 pennies. In the second year he collected 753 pennies. Which equation can be used to find p , the number of pennies Ian collected in the third year?

A. $p = 2,875 + 1,010 + 753$

B. $p = 1,010 + 753$

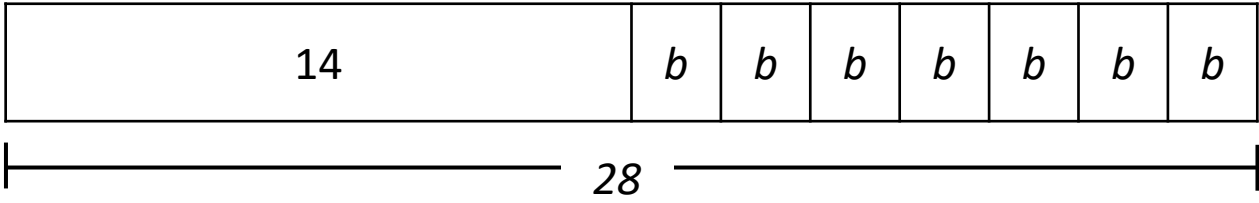
C. $p = 2,875 - 1,010 - 753$

D. $p = 1,010 - 753$

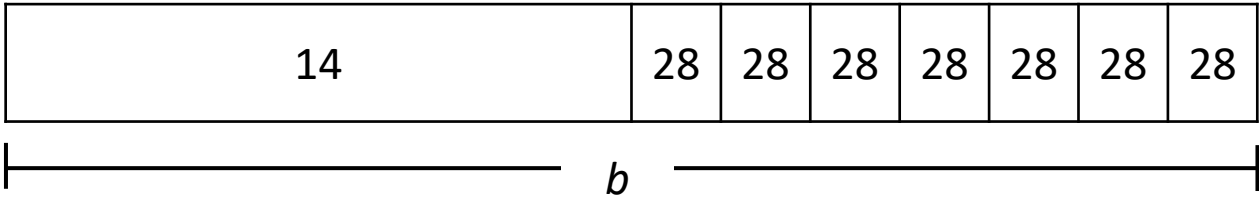
22. Chloe has a total of 28 dog biscuits for her dog Spike. She gave Spike half the biscuits last week. She will give him the rest of the biscuits during the next 7 days. She will give him the same number of biscuits each day.

Which strip diagram shows the way to find b , the number of biscuits Chloe will give to Spike each of the next 7 days?

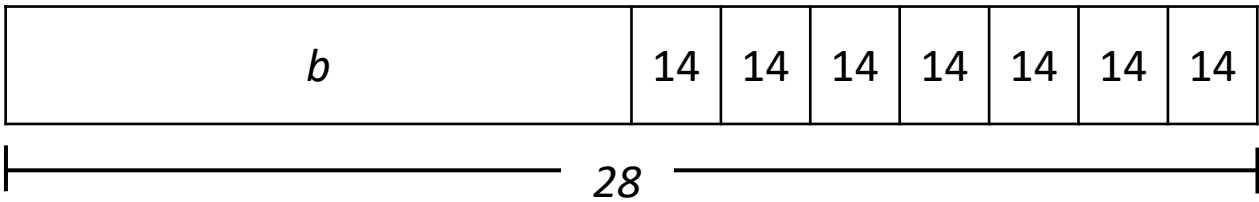
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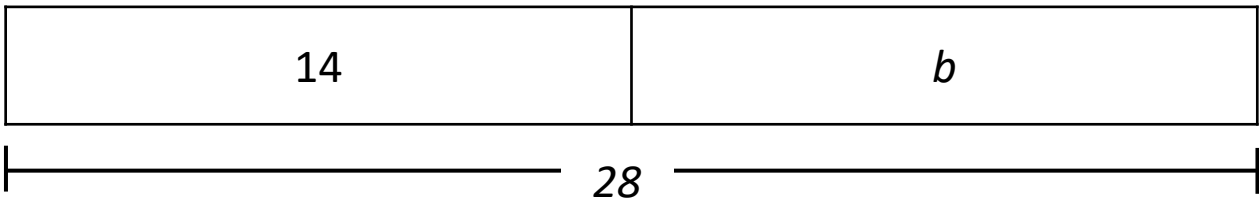
B.



C.



D.



23. Liam caught 15 crickets one day and 9 crickets the next day. He will use the crickets to feed his 6 pet mice. Each mouse will get the same number of crickets.

Draw a strip diagram that shows how you could figure out c , the number of crickets each mouse will receive. Then use the diagram to solve for c .

24. Amber had 3 chickens. Each chicken laid 3 eggs. She used 5 eggs to make breakfast. Write an equation you can use to find e , the number of eggs Amber has left. Then solve the equation.

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Problem Set: 5

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25. Jasmine does 25 sit ups a day. Her sister Jayla does 5 more sit-ups a day than Jasmine. Which equation can be used to find t , the total number of sit-ups the two sisters do in a day?

A. $t = 25 + 5$

B. $t = 25 + 25 \times 5$

C. $t = 25 + 25 + 5$

D. $t = 25 - 5$

26. Carlotta ate 14 oatmeal cookies this week. Her sister Carlina ate three times as many oatmeal cookies, plus she ate 7 chocolate chip cookies. Which equation can be used to find c , the number of cookies Carlina ate in all.

A. $3 + 14 + 7 = c$

B. $3 \times 14 + 7 = c$

C. $3 \times 14 - 7 = c$

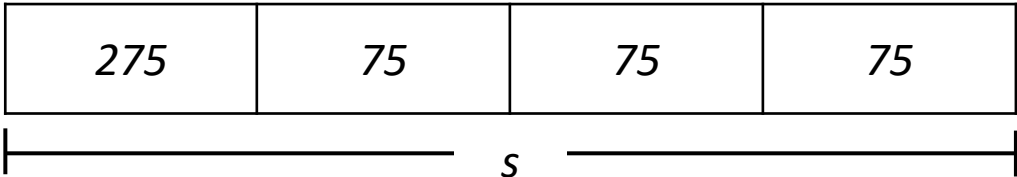
D. $14 \div 7 + 3 = c$

27. Muscular Marvin did 275 sit ups in 4 days.

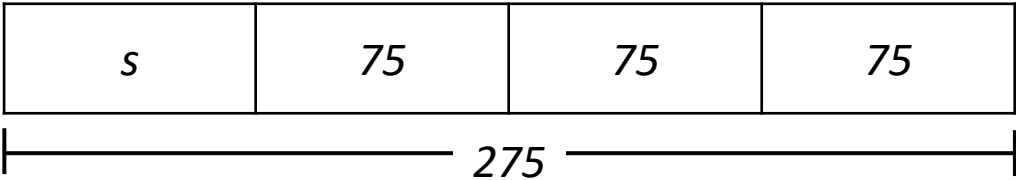
- On the first day, he did 75 sit ups.
- On the second and third and fourth days, he did the same number of sit ups.

Which diagram shows a way to find s , the number of sit ups Marvin did on the last day?

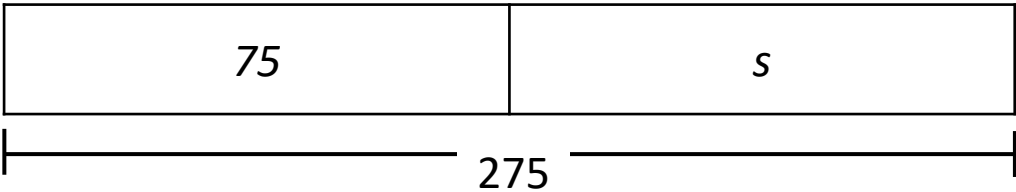
A.



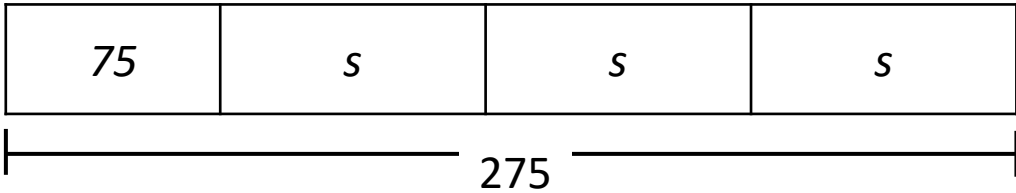
B.



C.



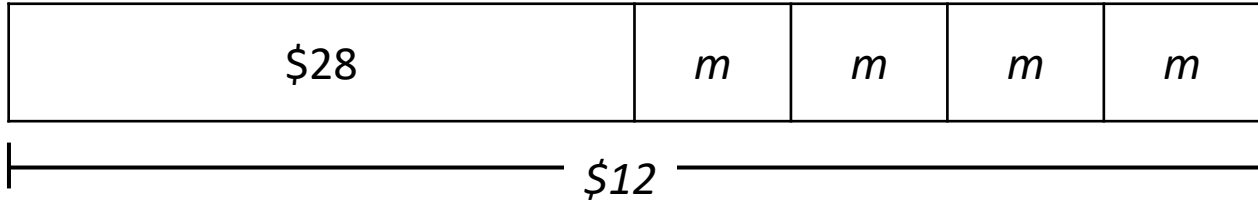
D.



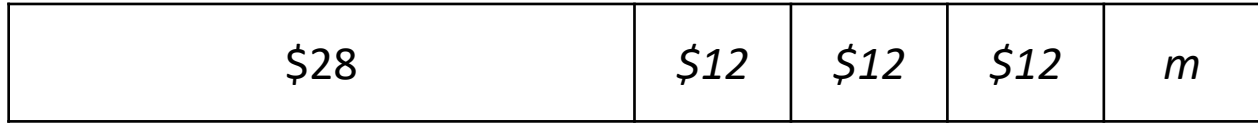
28. Noah spent \$28. He spent \$12 on Monday and then he spent the same amount on Tuesday, Wednesday, Thursday and Friday.

Which diagram shows a way to find m , the amount of money that Noah spent on Friday?

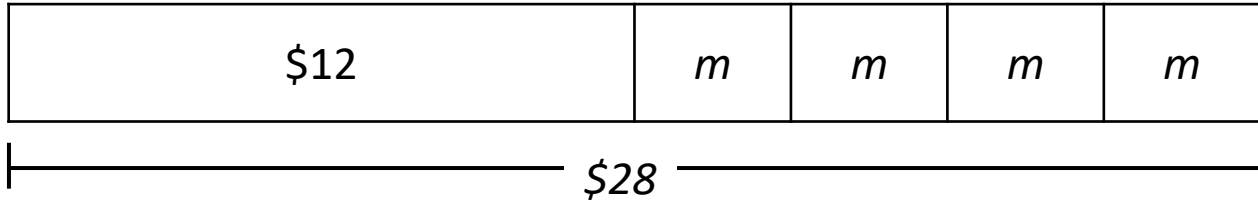
A.



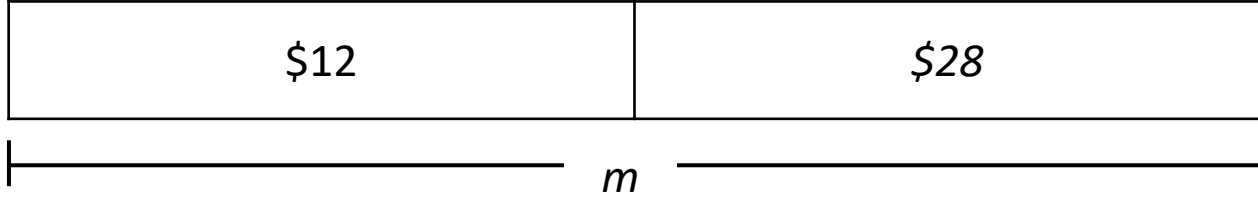
B.



C.



D.



29. Paula ate a total of 16 apples. She ate 4 apples the first day. Then, over the next 4 days, she ate the same number of apples each day.

Draw a strip diagram that shows a way to find a , the number of apples Paula ate on the fourth day. Then use the diagram to solve for a .

30. Meredith had 5 sacks of golf balls. Each sack contained 10 golf balls. She lost 12 golf balls the last time she played golf. Write an equation that shows a way to find g , the number of golf balls that Meredith has left. Then solve the equation.