Question 24
Benchmark A
March 2006

24. Amber made the input-output table shown.

Input	Output
2	12
5	27
8	42
10	52

Which rule explains how to get the output number from the input number?

A. add 5, multiply by 2

B. add 10

C. multiply by 5, add 2

D. multiply by 6

Question 14
Benchmark B
Spring 2009

14. Mary used tiles to make the pattern shown.

Figure 1 Figure 2 Figure 3 Figure 4

Which rule describes her pattern?

A. Each figure has two more tiles than the previous figure.
B. Each figure has four more tiles than the previous figure.
C. Each figure has half the number of tiles as the previous figure.
D. Each figure has double the number of tiles as the previous figure.

Question 8
Benchmark B
March 2008

Simon used a rule to create the input-output table shown.

Input (x)	Output (y)
1	5
2	9
3	13
4	17

Which rule did Simon use to make the table?

A. $y = x + 4$
B. $y = x + 10$
C. $y = 3x + 5$
D. $y = 4x + 1$

Question 42
Benchmark C
Spring 2009

Mr. Jefferson went to a book fair. Books cost $3 each.

In your **Answer Document**, write an equation for the total cost (t) of buying any number of books (b) at the book fair.

Use your equation to find the total cost of buying 7 books at the book fair. (2 points)

Question 33
Benchmark C
March 2008

Pam has 70 baseball cards. She decides that she will buy 10 more baseball cards each week.

In your **Answer Document**, write an equation that describes the number of cards, c, she will have in w weeks.

Then, use your equation to find the number of baseball cards Pam will have in 6 weeks. (2 points)

Question 2
Benchmark C
March 2006

Roberto had $20. He bought a soccer ball that cost m dollars. He now has less than $5 left.

Which inequality represents this situation?

A. $20 - m < 5$

B. $20 - m > 5$

C. $m - 20 < 5$

D. $m - 20 > 5$

Question 41
Benchmark C
March 2006

Ryan is painting faces at the fair. It takes him 10 minutes to set up his materials. Each face takes 6 minutes to paint. Ryan wants to know how many faces (f) he can paint in 60 minutes.

Which equation represents this situation?

A. $6f + 10 = 60$

B. $10f + 6 = 60$

C. $6f - 10 = 60$

D. $10f - 6 = 60$

Question 6
Benchmark E
March 2006

Grant does 20 sit-ups each day.

Which expression represents the total number of sit-ups that Grant will do in n days?

A. $n + 20$

B. $n - 20$

C. $n \times 20$

D. $n \div 20$

Question 33
Benchmark E&F
March 2006

33. Ethan rakes leaves to earn money. He uses the information in the table shown to find how long he takes to rake lawns of different sizes.

Size of Lawn (square feet)	Time to Rake (minutes)
200	40
250	50
300	60
350	70
400	80

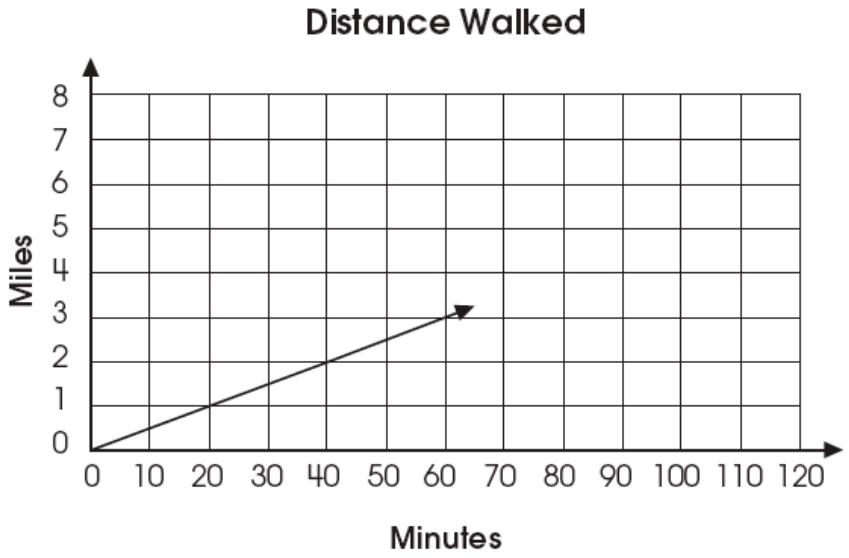
In your **Answer Document**, write a rule that tells how the amount of time Ethan needs to rake a lawn is related to the number of square feet in the lawn.

One of Ethan's neighbors has a 150-square-foot lawn. Use the table or your rule to explain how long it will take Ethan to rake this lawn. Show or explain your work.

Use the table or your rule to tell what size lawn Ethan can rake in 65 minutes. Show or explain your work. (4 points)

Question 36
Benchmark F
Spring 2009

36. Mary recorded the number of miles she walked in 60 minutes, as shown in the graph.



The next day, Mary walked for 100 minutes at the same speed.

How many miles did she walk the next day?

A. 4 miles

B. 5 miles

C. 6 miles

D. 7 miles

Question 3
Benchmark F
March 2008

Paul walked 3 miles per hour while on a 4-hour hike.

Which table shows the total number of miles that Paul has walked at the end of each hour?

A.

Hour	Miles
1	1
2	2
3	3
4	4

B.

Hour	Miles
1	3
2	6
3	9
4	12

C.

Hour	Miles
1	3
2	9
3	27
4	81

D.

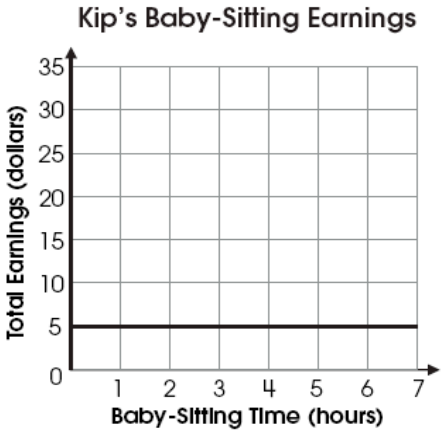
Hour	Miles
1	1
2	3
3	6
4	9

Question 45
Benchmark F
March 2006

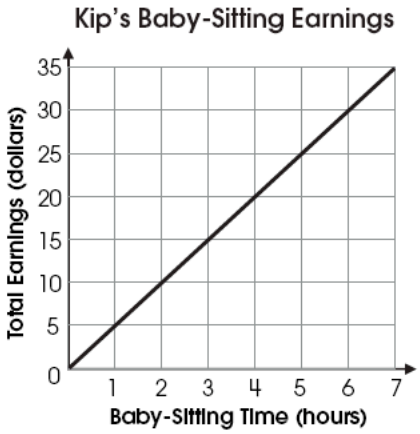
45. Kip earns $5 an hour baby-sitting.

Which graph represents the amount of money he earns over time?

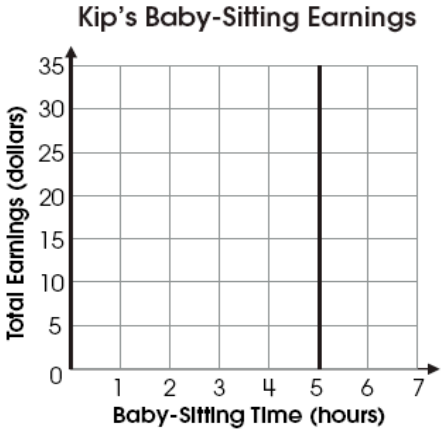
A.



C.



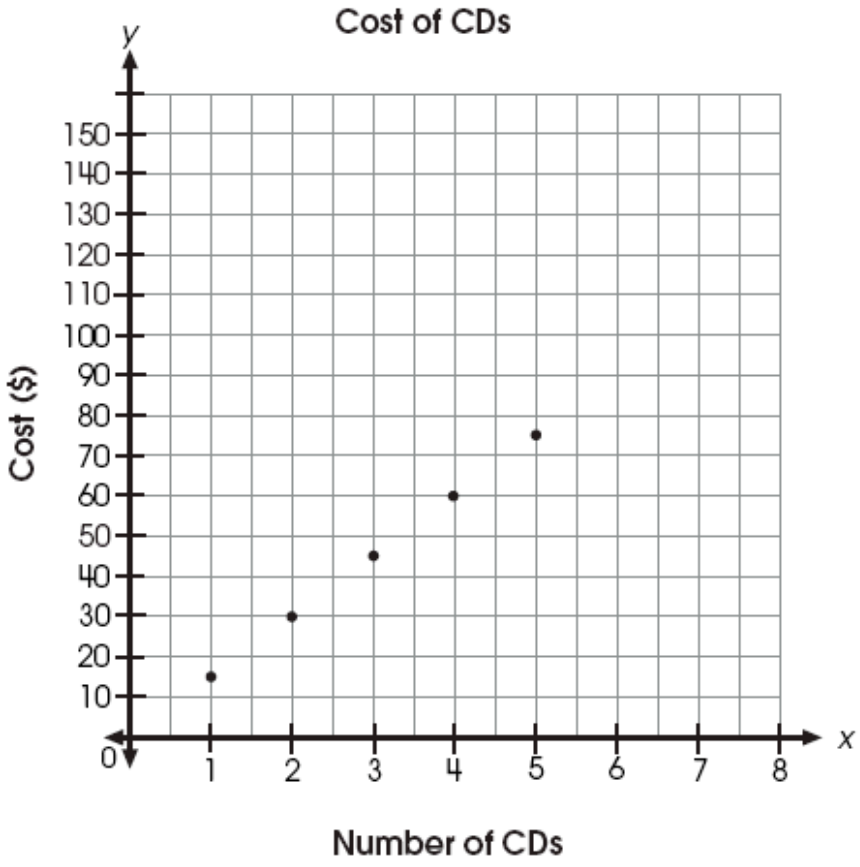
B.



D.

Question 27
Benchmark F
Spring 2007

27. The graph shows the cost of different numbers of CDs.



What is a reasonable prediction for the number of CDs that can be purchased for $105?

A. 5

B. 6

C. 7

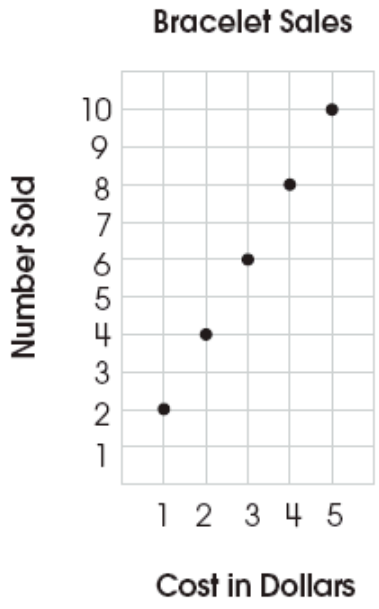
D. 8

Question 16
Benchmark K
Spring 2007

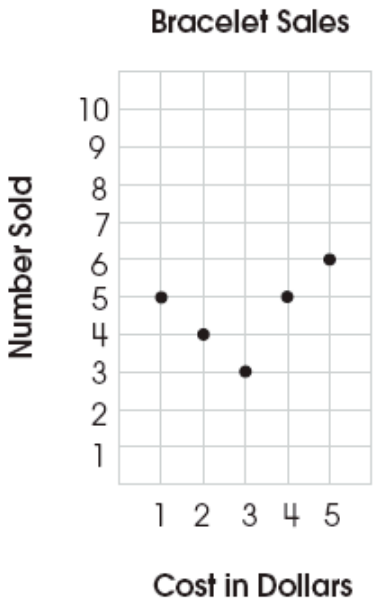
16. Chelsea made bracelets and sold them at craft fairs. She found that most people would pay up to $3.00 for a bracelet. When the price went above $3.00, her sales dropped.

Which graph might show Chelsea's sales as her prices went up?

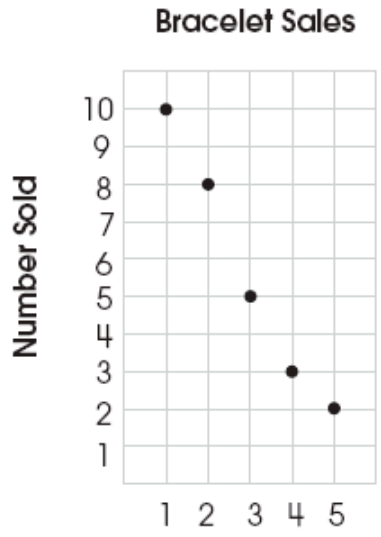
A.



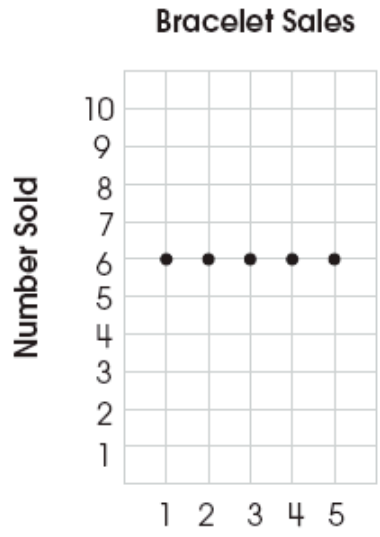
B.



C.



D.



Question 25
Benchmark L
Spring 2009

25. Morgan recorded the amount of time she spent reading and the number of pages she read each day.

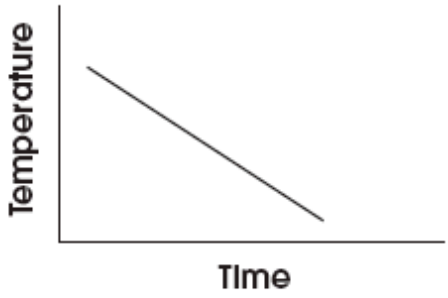
Time (minutes)	Number of Pages
60	20
75	25
15	5
45	15

In your **Answer Document**, describe the relationship between the number of pages Morgan read each day and the amount of time she spent reading.

Morgan continues to read at the same rate. Determine the amount of time it will take her to read 30 pages. Show work or explain how you determined the amount of time it will take Morgan to read 30 pages. (2 points)

Question 28
Benchmark L
March 2008

The graph shows the change in temperature over a period of time.



Which describes the change in temperature during this period of time?

A. The temperature gets hot, then cold, then hot again.
B. The temperature gets colder during this period of time.
C. The temperature gets warmer during this period of time.
D. The temperature stays the same during this period of time.