Answer questions 1 through 34. You may NOT use a calculator.

1 The elevation of the surface of the Dead Sea is −424.3 meters. In 2005, the height of Mt. Everest was 8,844.43 meters. How much higher was Mt. Everest?

A −9,268.73 m

B −8,420.13 m

C 8,420.13 m

D 9,268.73 m

2 The table below shows how much flour Carlos needs to bake various numbers of scones.

Scones	Cups of Flour
12	3
20	5
28	7

How many cups of flour does Carlos need for each scone?

A $\frac{1}{4}$

B $\frac{3}{4}$

C 3

D 4

Go On

3 A piece of wood is $\frac{5}{16}$ inch thick. Which decimal shows the same measure?

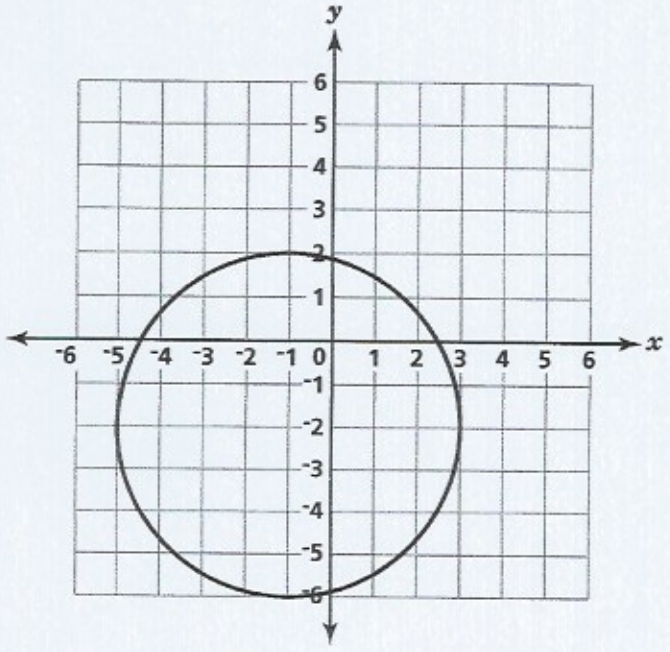
A 0.1875 inch

B 0.3125 inch

C 0.6875 inch

D 3.1250 inch

4 The figure shows a circle graphed on a coordinate plane.



What is the approximate circumference of the circle? Use 3.14 for π.

A 12.6 units

B 25.1 units

C 39.5 units

D 50.3 units

5 Cedric has 1 red pen, 1 blue pen, and 1 black pen in his desk. If he randomly takes two of them from his desk without replacement, what is the probability that he will take the blue and black pens?

A $\frac{1}{3}$

B $\frac{1}{6}$

C $\frac{1}{9}$

D $\frac{1}{12}$

6 Mai spends $7\frac{3}{5}$ hours in school each day. Her lunch period is 30 minutes long, and she spends a total of 42 minutes switching rooms between classes. The rest of her day is spent in 6 classes that are all the same length. How long is each class?

A $1\frac{1}{15}$ hours

B $1\frac{3}{20}$ hours

C $1\frac{11}{60}$ hours

D $1\frac{4}{15}$ hours

7 Which equation is true?

A $\frac{4}{-9} = \frac{-4}{9}$

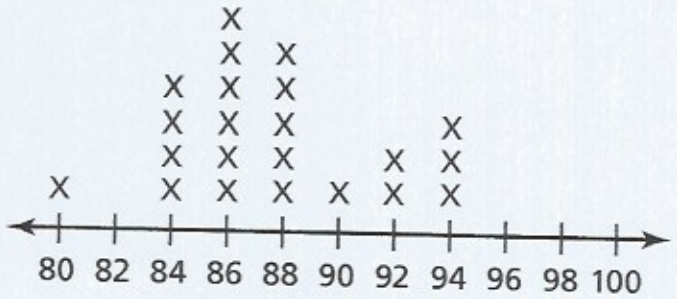
B $\frac{4}{-9} = \frac{2}{-3}$

C $\frac{4}{-9} = \frac{4}{9}$

D $\frac{4}{-9} = \frac{2}{3}$

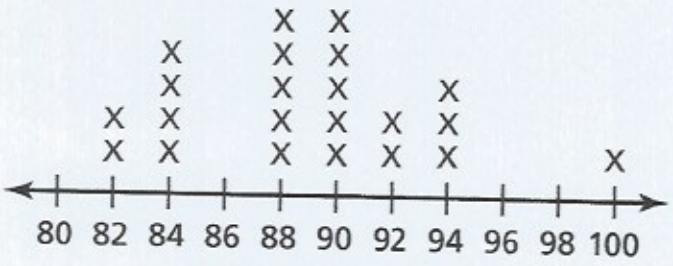
Go On

8 This line plot shows the scores students in Mrs. Metro's class received on their chapter test.



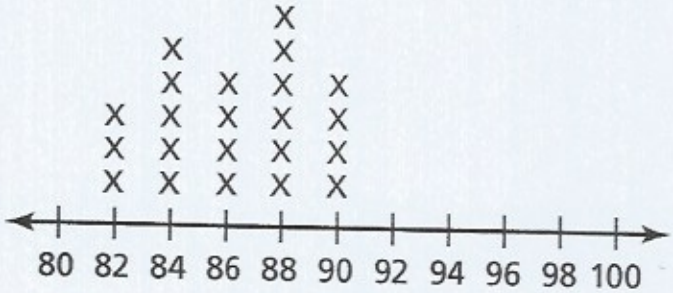
Mrs. Metro's Class

Which of these line plots of other classes' scores shows nearly the same center?



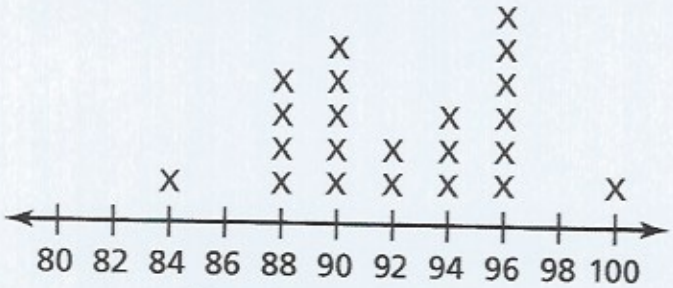
Ms. Chan's Class

A



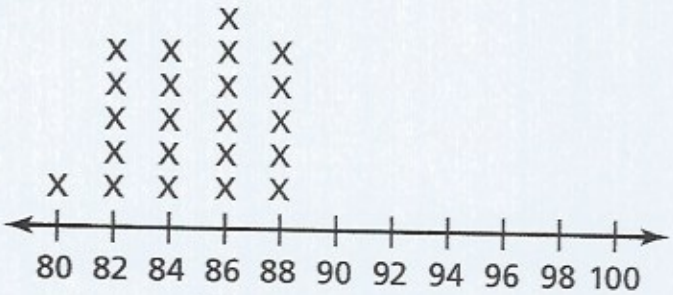
Mr. Fisher's Class

C



Ms. Castro's Class

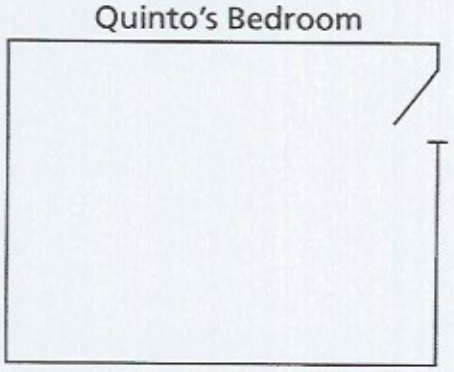
B



Mr. Jacob's Class

D

9 The figure below is a scale drawing of Quinto's bedroom. The scale used to create the drawing is $\frac{1}{2}$ inch = 4 feet.



What is the approximate area of Quinto's bedroom?

A 62 ft²

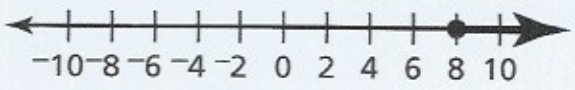
B 169 ft²

C 192 ft²

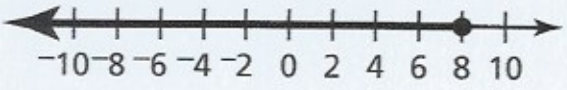
D 234 ft²

10 Layla is saving money to buy a bicycle that costs $249. She has already saved $193. She saves $7 each week. Which inequality shows the solution set for the number of weeks that Layla will need to save money to be able to buy the bicycle?

A



B



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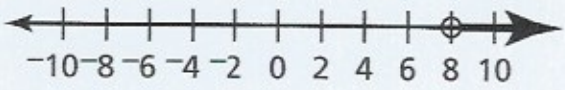

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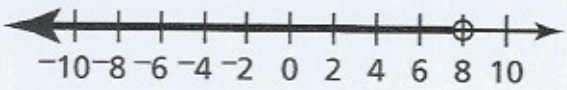


Go On

11 Yesterday, Nancy's lunch cost $9.80, and she left a $1.47 tip. Today, Nancy's lunch cost $12.60. If she tips at the same rate that she did yesterday, how much of a tip should Nancy leave?

A $1.14

B $1.47

C $1.89

D $4.27

12 How can $\frac{4}{9}$ be written as a decimal?

A 0.44

B $0.\overline{4}$

C $2.\overline{2}$

D 2.25

13 What is the result of adding $-2.9a + 6.8$ and $4.4a - 7.3$?

A $7.3a + 14.1$

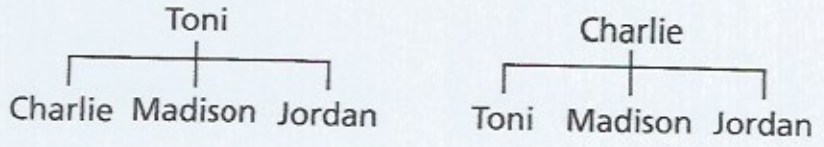
B $2.5a - 1.5$

C $1.5a + 0.5$

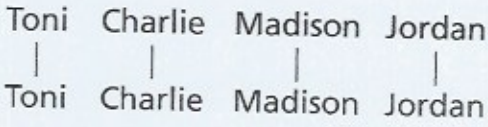
D $1.5a - 0.5$

14 Charlie, Toni, Madison, and Jordan are the 4 finalists in the school spelling bee. The spelling bee is designed so that there will be no ties. Which tree diagram shows the ways that the students can finish first and second in the spelling bee?

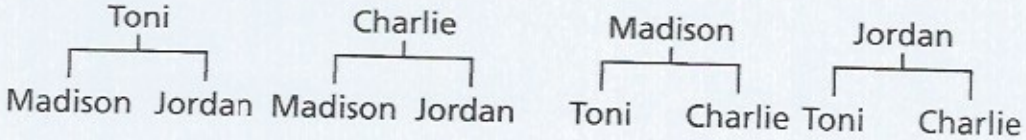
A



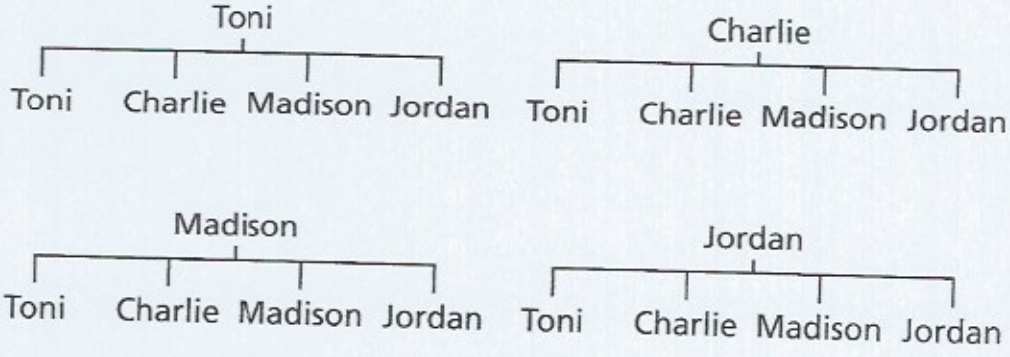
B



C



D



Go On

15 The math club needs to raise more than $552.50 for a trip to state competition. The club has raised 12% of the funds. Which inequality shows how much money each of the 7 club members needs to raise if each raises the same amount?

A $m < \$69.45$

B $m > \$69.45$

C $m < \$72.35$

D $m > \$72.35$

16 Which number is located the same distance on a number line from -5 as 3 is?

A 11

B 8

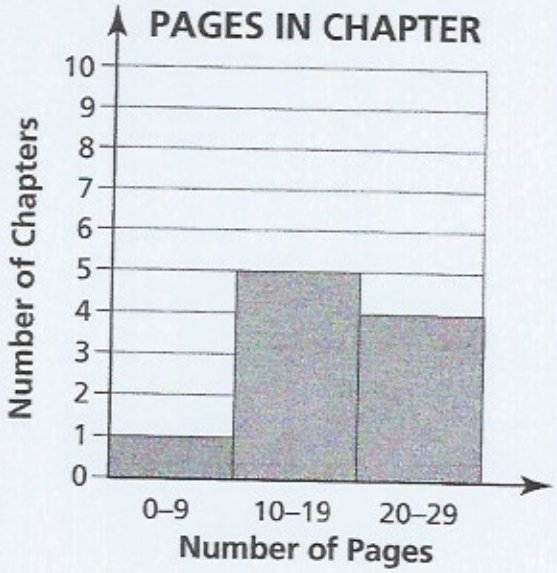
C -2

D -13

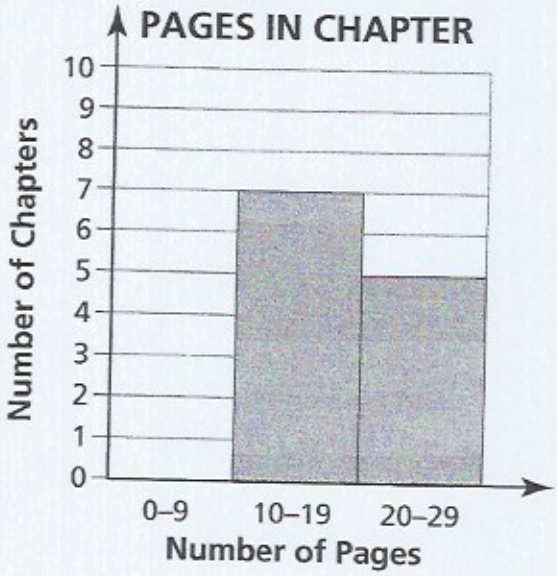
17 Oliver is reading a book with 12 chapters. The number of pages in each chapter is listed below.

9, 19, 25, 13, 17, 17, 15, 22, 24, 20, 15, 18

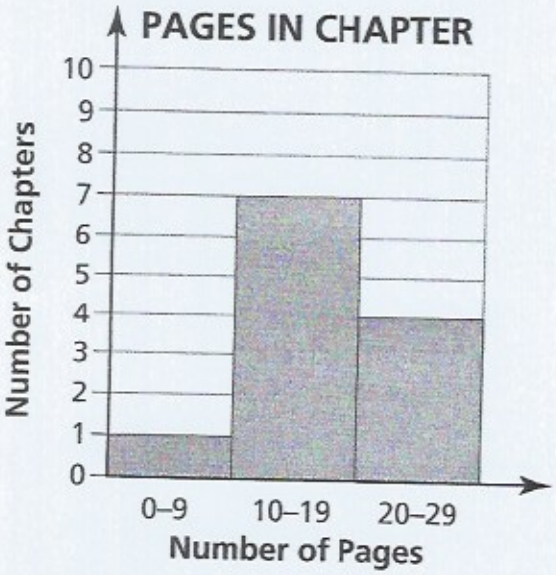
Which histogram ***best*** displays these data?



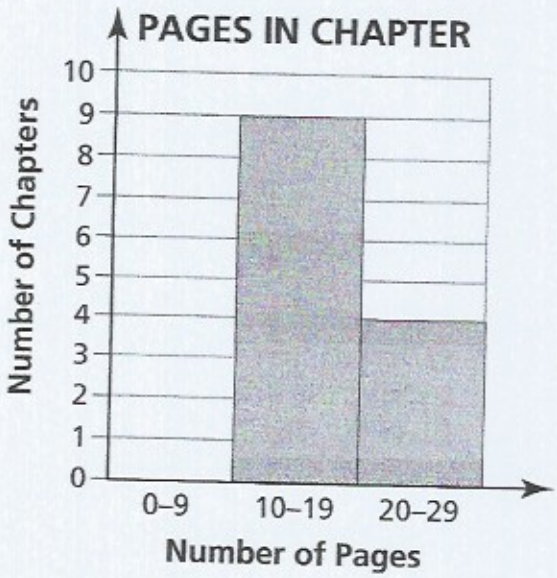
A



C



B



D

Go On

18 A school auditorium can hold 386 people. For a choir concert, there will be 23 staff members in attendance. Which inequality describes the maximum number of guests each of the 33 choir members can invite to the concert to fit in the auditorium if each member invites the same number of people?

A $g \geq 11$ guests

B $g \leq 11$ guests

C $g \geq 12$ guests

D $g \leq 12$ guests

19 Jacob is rolling a number cube and flipping a coin. What is the probability that the cube will land on 4 and the coin will land heads up?

A $\frac{2}{3}$

B $\frac{1}{2}$

C $\frac{1}{6}$

D $\frac{1}{12}$

20 A company's stock begins the week with a price of \$43.85 per share. The price changes by \$2.70 each day for 2 days. Then the price changes by $-$\$1.10 each day for 2 days. On the last day, the price changes by $-$\$4.45. What is the price per share of the company's stock after those five days?

A \$41.00

B \$42.60

C \$45.10

D \$55.90

21 Cleo wants to join a gym. There is an initiation fee of $24.99, and each month of membership costs $12.50. If Cleo pays $174.99, how long will his membership last?

A 5 months

B 7 months

C 12 months

D 14 months

22 In the equations below, x is the independent variable, and y is the dependent variable.

Equation Number	Equation
1	$4y = 3x$
2	$8y = 5x$
3	$8y = 6x$
4	$5y = 8x$

Which two equations have the same constant of proportionality?

A 2 and 4

B 2 and 3

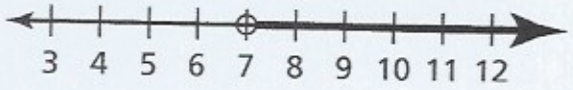
C 1 and 3

D 1 and 2

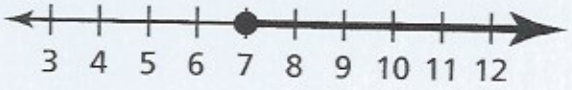
Go On

23 Kathy is packing her suitcase for a trip. She wants the total weight of the suitcase to be less than 50 pounds. The total weight so far is $37\frac{1}{2}$ pounds. She wants to add books that weigh $1\frac{3}{4}$ pounds each. Which inequality shows the number of books she can add to her suitcase?

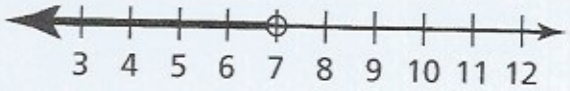
A



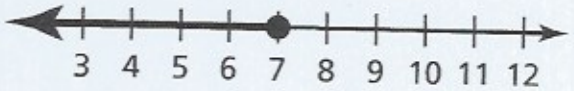
B



C



D



24 Which expression has the same value as $-\frac{3}{2} - \left(2 - \frac{3}{8}\right) + \frac{3}{2}$?

A $\left(\frac{3}{2} - \frac{3}{2}\right) - 2 + \frac{3}{8}$

B $\left(\frac{3}{2} - \frac{3}{2}\right) + \left(2 + \frac{3}{8}\right)$

C $-\left(\frac{3}{2} + \frac{3}{2}\right) - \left(2 - \frac{3}{8}\right)$

D $\left(-\frac{3}{2} + \frac{3}{2}\right) + \left(2 + \frac{3}{8}\right)$

25 Greta learned that about 10% of people are left-handed. She ran 10 different simulations using random digits to find the probability that there is a left-handed person in a group of 5 randomly selected people. In the table below, 0 represents a left-handed person and 1 through 9 represent a right-handed person. Each row represents one simulation of 5 people.

3	1	4	9	6
5	6	9	6	7
5	3	2	6	8
1	4	4	2	8
9	4	4	2	6
6	8	7	4	9
6	3	4	8	8
2	7	4	4	2
0	3	6	1	6
0	5	2	0	9

Based on Greta's simulations, what is the probability that in a group of 5 people, at least 1 person will be left-handed?

A 6%

B 20%

C 30%

D 60%

Go On

26 A clothing store paid an import tax of $32 on a shipment of $800 worth of silk scarves. The import tax rate is always the same. What would be the value of silk scarves that have an import tax of $120?

A $888.00

B $1,776.00

C $3.000.00

D $3,200.00

27 Antwon gathered data on the ages of 15 parents of students in his school. He recorded the data in the table below.

36	32	51	31	30
42	56	32	43	54
26	43	38	43	28

Which is the ***best*** prediction that Antwon can make about the ages of the parents at his school?

A There are not any parents older than 56.

B Most parents are about 39 years old.

C The mean age is about 39.

D At least half the parents are over 40 years old.

28 Daphne has 3 days to drive 932.4 miles. She wants to have completed about 75% of the drive by the start of day 3. Which of the following is the ***closest*** to the distance she should drive on each of the first two days?

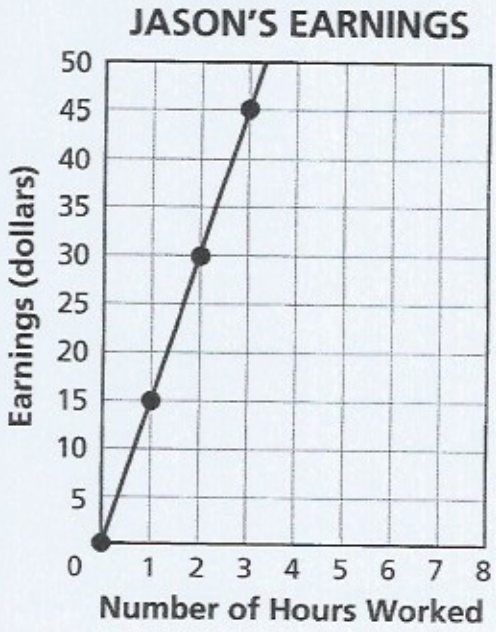
A 230 mi

B 310 mi

C 350 mi

D 700 mi

29 The graph below shows Jason's earnings based on the number of hours he works.



What point on the graph represents Jason's hourly pay rate?

A (0, 0)

B (1, 15)

C (2, 30)

D (3, 45)

30 What is the value of $\frac{-3}{4} - \left(\frac{3}{-8}\right)$?

A $-1\frac{1}{8}$

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

C $\frac{3}{8}$

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

Go On

31 What is the value of $-\frac{1}{6}+\frac{2}{3}\left(9-\frac{3}{4}\right)-\frac{1}{2}$?

A $\frac{62}{12}$

B $\frac{58}{12}$

C $\frac{55}{12}$

D $\frac{3}{12}$

32 Which expression is equivalent to $\frac{2}{5}(4x+9)$?

A $\frac{4}{5}x+\frac{9}{5}$

B $\frac{6}{5}x+\frac{11}{5}$

C $\frac{8}{5}x+\frac{7}{5}$

D $\frac{8}{5}x+\frac{18}{5}$

33 Montel sold 13 popcorn buckets and 13 fruit baskets for a fundraiser. The fruit baskets cost $20.75 each. If Montel raised a total of $468, how much did each popcorn bucket cost?

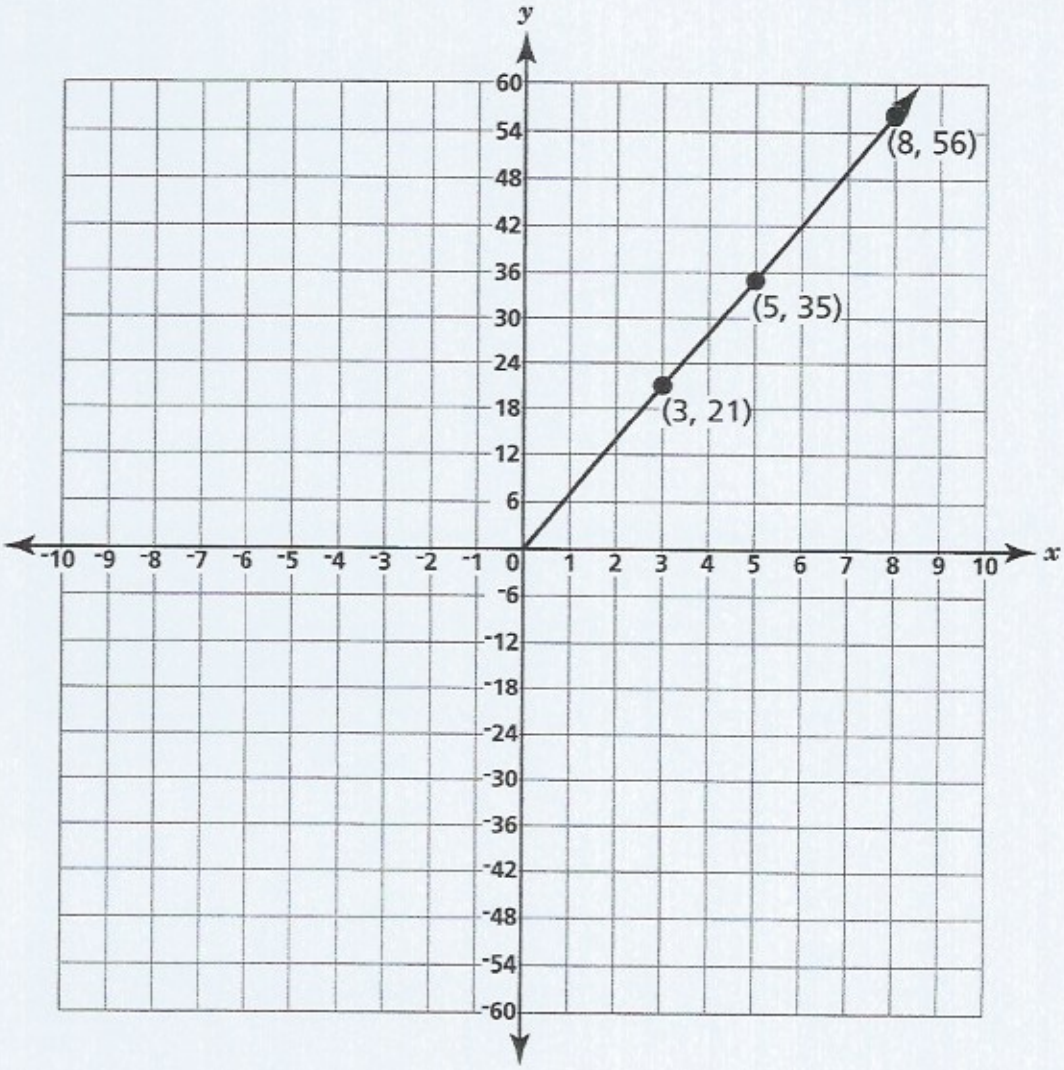
A $36.00

B $33.75

C $22.55

D $15.25

34 The graph below shows a proportional relationship, $y = kx$.



What is the constant of proportionality, k?

A $\frac{1}{14}$

B $\frac{1}{7}$

C 7

D 14

STOP