7th Grade Advanced Topic III, Proportionality, MA.7.A.1.1, MA.7.A.1.2, MA.7.A.1.3, MA.7.A.1.4, MA.7.A.1.5, MA.7.A.1.6

Multiple Choice
Identify the choice that best completes the statement or answers the question.

1 Which situation BEST represents a proportional relationship?

    A. Sandra sold 2 bracelets for $3 and 3 bracelets for $6.
    B. Jeff ran 4 miles in 20 minutes and 6 miles in 24 minutes.
    C. Lamont packed 27 glasses in 9 cases and 81 glasses in 27 cases.
    D. Fernanda placed 8 pencils in 2 boxes and 16 pencils in 8 boxes.

2 If $\dfrac{a}{b} = \dfrac{c}{d}$, and $c = 5a$, which of the following must be TRUE?

    F. $\dfrac{c}{d} = \dfrac{5a}{5b}$

    G. $\dfrac{c}{d} = \dfrac{5b}{5a}$

    H. $\dfrac{c}{d} = \dfrac{5+a}{5+b}$

    I. $\dfrac{c}{d} = \dfrac{5+b}{5+a}$

3 The following list shows the ingredients needed to make 1 loaf of banana bread.

Banana Bread
- 2 cups flour
- 1 teaspoon baking soda
- $\frac{1}{4}$ teaspoon salt
- $\frac{1}{2}$ cup butter
- $\frac{3}{4}$ cup brown sugar
- 2 eggs, beaten
- $2\frac{1}{3}$ cups mashed overripe bananas

Allan will modify the recipe so he can use 7 cups of mashed overripe bananas. Based on this information, how many cups of flour will he need to complete the recipe?

A. 3
B. $3\frac{1}{2}$
C. 6
D. $6\frac{1}{2}$

4 A candle factory makes colored candle chips to sell in packages. Which of the following situations BEST represents a proportional relationship?

F. Manny sold 109 packages on his first day at work. Gloria sold 100 packages on her first day at work.
G. On Monday, 25 packages were prepared every working hour. On Tuesday, 20 packages were prepared every working hour.
H. Each individual package is sold for $1.98. Ten packages are sold for $16.99.
I. Each package has 8 yellow candle chips. A total of 18 packages will have 144 yellow candle chips.

5 The proportion $\frac{5}{8} = \frac{x}{y}$ is given. If the numerator 5 is divided by 5 to get the value of x, which expression could be used to find the value of y?

A. $1 \div 8$
B. $5 \div 8$
C. $8 \div 8$
D. $8 \div 5$

6 The expected growth rate of a country's population is 0.3%. If the population of the country in 2007 was 5,432,335, what would be the expected population of the country in 2008?

F.   5,448,632
G.   5,559,305
H.   7,062,036
I.   18,107,783

7 Ben invests $450.00 in a savings account that earns 3% simple interest annually. If he does not make any additional deposits or withdrawals, how much money, to the nearest cent, should be in the account after 2 years?

A. $13.50
B. $27.00
C. $463.50
D. $477.00

8 The original price of a dining table set is $400. The set is on sale for 40% off. What is the sale price of the set?

F. $40
G. $100
H. $160
I. $240

9 In 2000, the population of Miami-Dade County, Florida, was approximately 2,250,000. In 2009, the population was about 2,500,000. To the nearest whole number, what is the percent of increase in population over this nine-year period?

A.   2%
B.   10%
C.   11%
D.   110%

10 Ellie received a 20% discount on the purchase of 9 shirts that were originally priced at $11.65 each. What was the total cost of the 9 shirts after the discount?

F. $83.88
G. $84.85
H. $102.75
I. $104.85

11 A bicycle store owner sells all merchandise at 25% above original cost. A customer bought a bicycle for $140.00. How many dollars did the store owner originally pay for the bicycle?

    A. $ 35
    B. $105
    C. $112
    D. $175

12 Jerry built a rectangular vegetable garden in his yard that measures 12 feet by 6 feet. He wants to build a smaller flower garden that is similar but NOT congruent to the vegetable garden. Which could be the dimensions of Jerry's flower garden?

    F.   3 feet by 2 feet
    G. 4 feet by 3 feet
    H. 6 feet by 3 feet
    I.   12 feet by 6 feet

13 Rectangle X is 5 cm long and 3 cm wide. Rectangle Y is similar to Rectangle X. Which could be the dimensions of Rectangle Y?

    A. 10 cm long and 3 cm wide
    B. 10 cm long and 8 cm wide
    C. 15 cm long and 9 cm wide
    D. 15 cm long and 13 cm wide

14 Two similar isosceles triangles are shown below. The dimensions are given in millimeters.
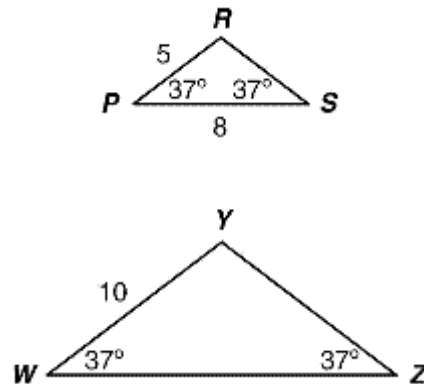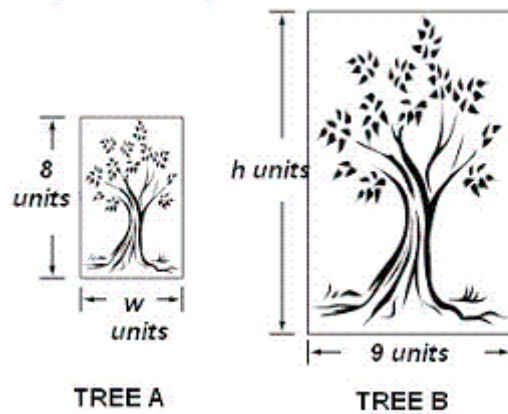

Which statement is TRUE?

    F. $YZ = 8\,\text{mm}$
    G. $WZ = 8\,\text{mm}$
    H. $YZ = 16\,\text{mm}$
    I. $WZ = 16\,\text{mm}$

15 Figures *ABCD* and *EFGH* are similar. The ratio of their corresponding sides is 5:1.
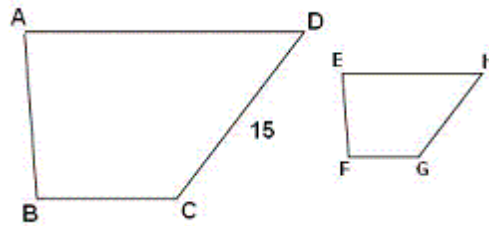
What is the length of $\overline{GH}$?

A. 3 units
B. 4 units
C. 5 units
D. 10 units

16 In graphics class, Ben made two prints of trees on similar sheets of paper. If the width of the paper used for Tree A is 6 units, what is the height of the paper used for Tree B?
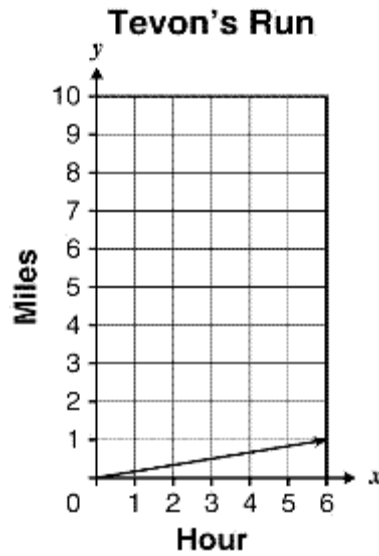

F. 7
G. 10
H. 11
I. 12

17 Tevon runs at an average speed of 6.5 miles per hour. Which graph BEST represents the relationship between the distance and time as Tevon runs?
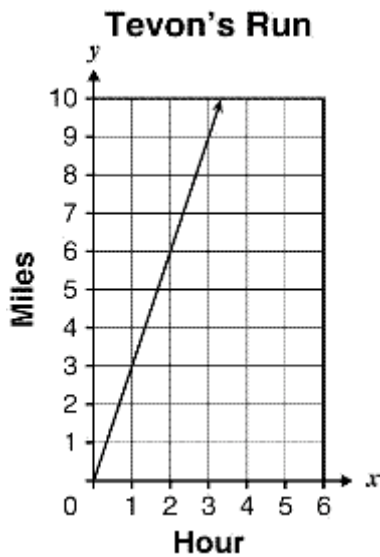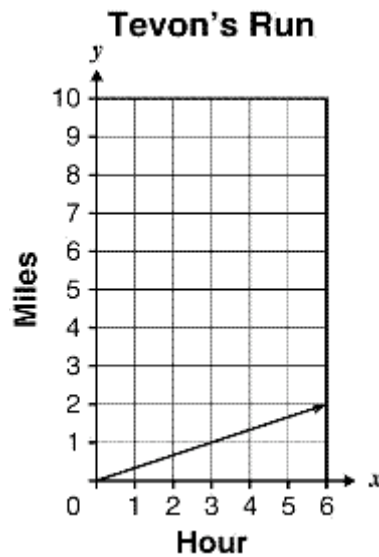
A.

Tevon's Run

C.

Tevon's Run

B.

Tevon's Run

D.

Tevon's Run
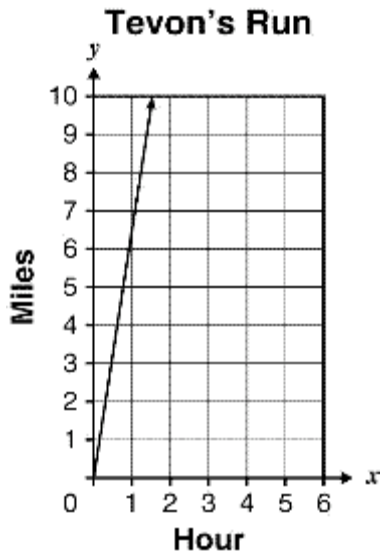
18 The graphs below show a change in the slope of line *m* from $\frac{3}{4}$ to $\frac{1}{4}$.

Line *m* Before Change
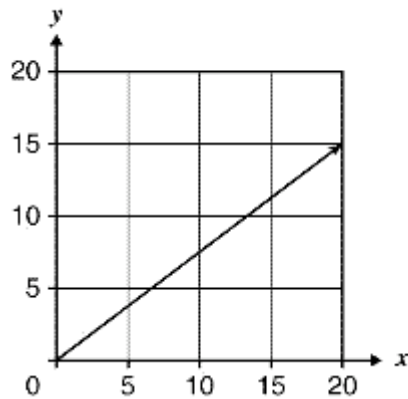
Line *m* After Change
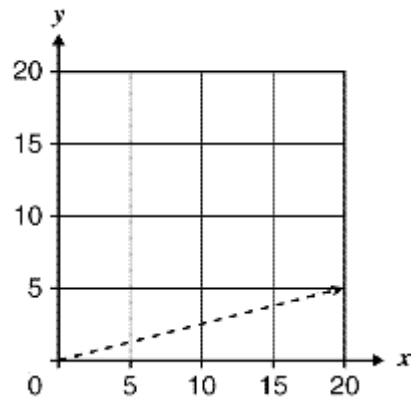
Which statement is TRUE for the value of *y* when *x* has a value of 12?

F. The value of *y* increased from 1 to 3.
G. The value of *y* decreased from 3 to 1.
H. The value of *y* increased from 3 to 9.
I. The value of *y* decreased from 9 to 3.

19 The graph below shows the prices at which Joanna sells tomatoes according to their weight.

Tomato Prices
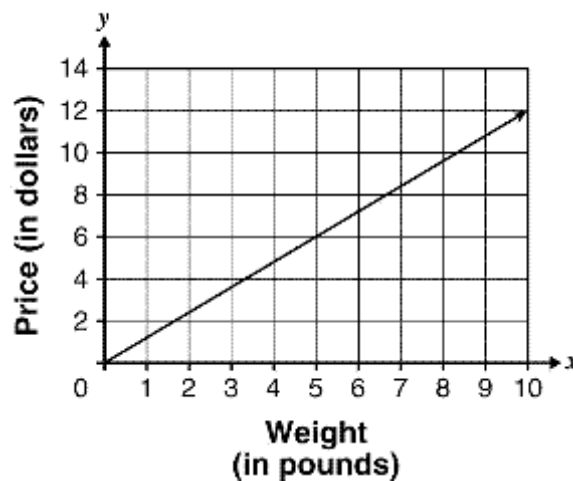
Which rate shows the price at which Joanna sells tomatoes?

A. $0.83 per pound
B. $1.20 per pound
C. $1.50 per pound
D. $2.50 per pound

20 Bottles of water are sold in packages of 6. The graph shows the cost per package.

Bottled Water
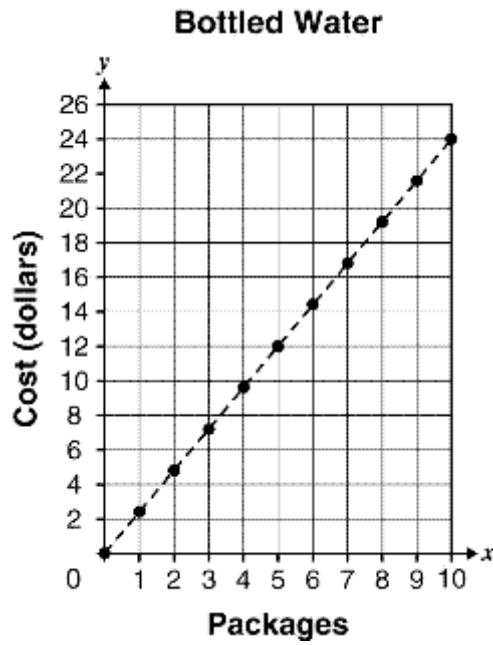
Based on the graph, what should be the cost per bottle of water?

F. $0.40

G. $0.67

H. $2.33

I. $2.40

21 Mr. Diaz changed his showerhead to conserve water and energy. The table below shows relationship between the amount of flow and the duration of the water flow.

New Showerhead Water Flow
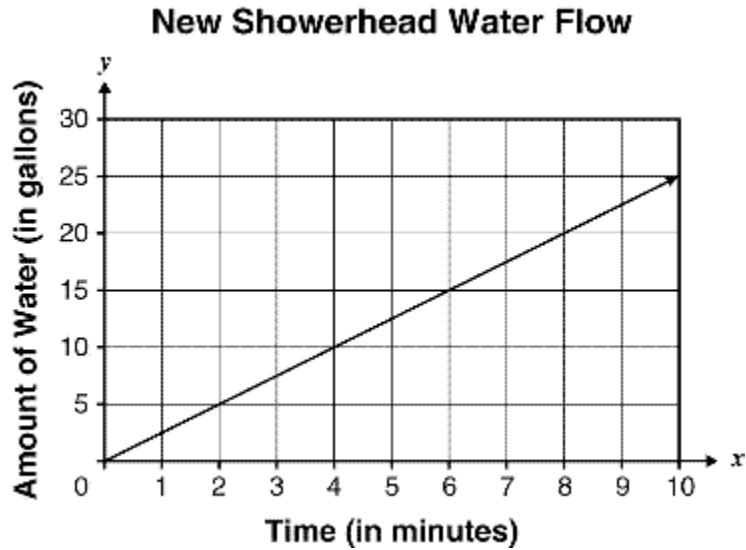
Which statement BEST describes the rate of water flow?

A. 0.4 gallons per minute
B. 2.1 gallons per minute
C. 2.5 gallons per minute
D. 3.0 gallons per minute

22 Which table shows the relationship between x and y as a direct variation?

F.

x	2	4	8	10
y	5	9	17	21

H.

x	2	3	4	5
y	4	9	16	25

G.

x	1	3	5	6
y	4	12	20	24

I.

x	2	3	6	12
y	6	4	2	1

23 Which situation describes an inverse variation?

    A. Eight tiles cost $20, and 10 tiles cost $25.
    B. Eight tiles cost $20, and 20 tiles cost $16.
    C. Four men moved 2,000 boxes in 6 hours, and 8 men moved 2,000 boxes in 3 hours.
    D. Four men moved 2,000 boxes in 6 hours, and 8 men moved 2,000 boxes in 12 hours.

24 For which situation does the money amount NOT vary directly with time?

    F. working for $15 per hour
    G. renting an apartment for $500 per month
    H. paying a cell phone bill with a charge of $0.35 per minute
    I. balance per month of a savings account receiving a 3% monthly interest rate

25 Which table below BEST represents an inverse variation between x and y?

A.

x	y
1	100
2	200
3	300
4	400

C.

x	y
6	3
8	4
12	6
24	12

B.

x	y
3	1
6	2
9	3
12	4

D.

x	y
1	100
2	50
5	20
10	10

26 Which graph represents a direct variation between *x* and *y?*

F.
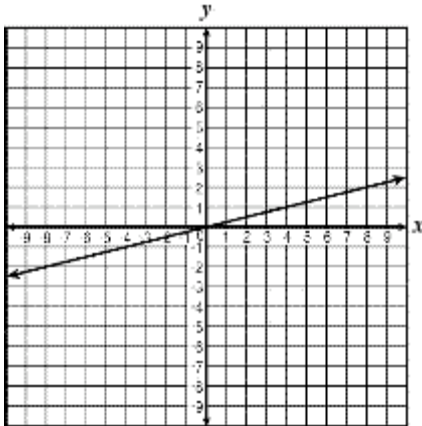
H.
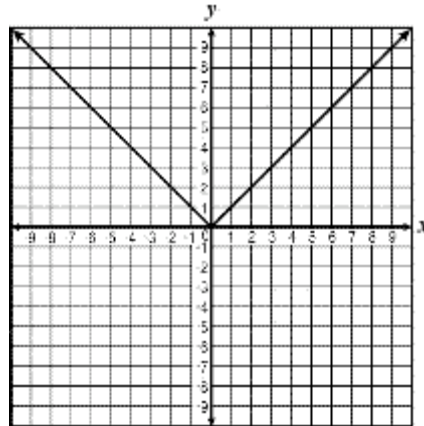
G.
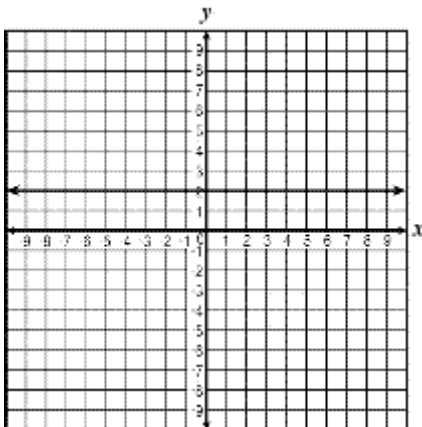
I.
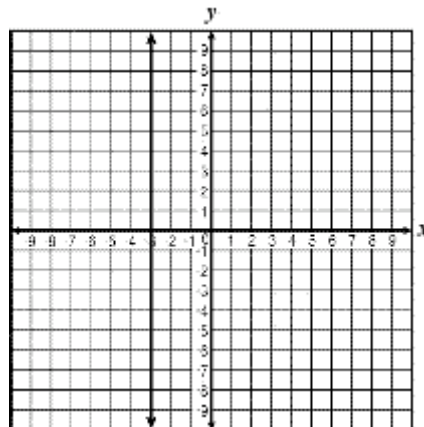
27 A scale model of an airplane has a wingspan of 8 inches (in.). The actual airplane has a wingspan of 32 feet (ft). What scale was used to create the model of the airplane?

A. 1 in. = 4 ft
B. 1 in. = 8 ft
C. 4 in. = 1 ft
D. 4 in. = 8 ft

28 Amy traveled in her kayak at a rate of 5.2 kilometers per hour. How far could she travel in 90 minutes at this rate?

F. 3.5 km
G. 6.7 km
H. 7.8 km
I. 10.4 km

29 Corey is drawing a map of his town. The scale on his map is 1 inch = 5 miles.

Corey's Town Map
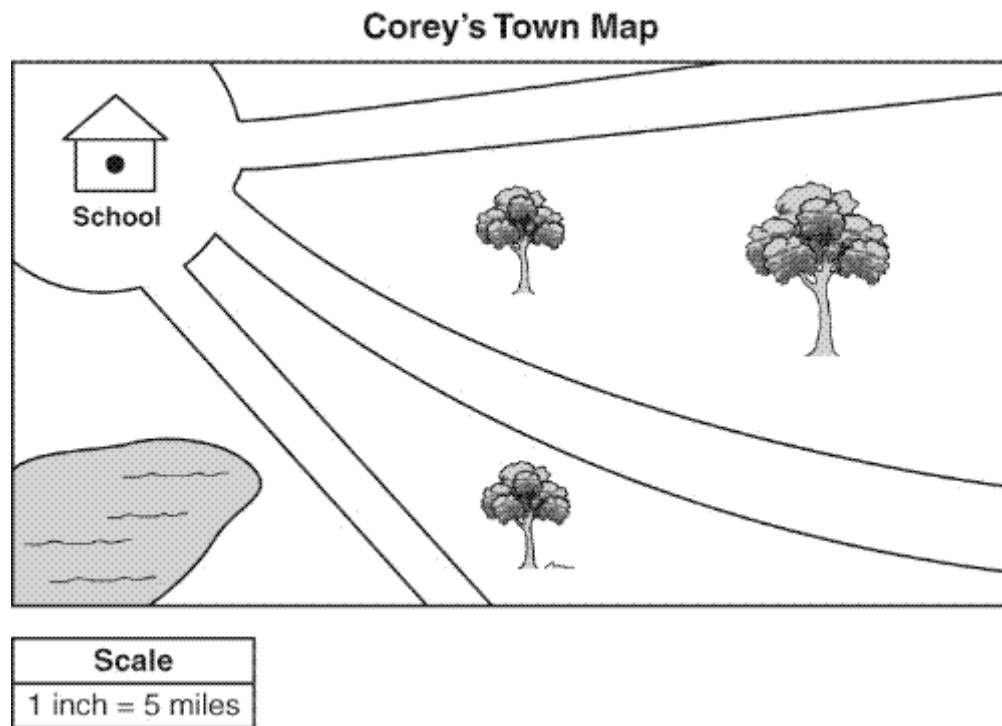
Scale
1 inch = 5 miles

If the library is $15\frac{1}{2}$ miles from the school, how many inches from the school should Corey draw the library on his map?

A. $1\frac{1}{2}$ inches

B. $3\frac{1}{10}$ inches

C. $3\frac{1}{2}$ inches

D. $5\frac{1}{10}$ inches

30 An architect made a scale drawing of a house.

Scale Drawing of House
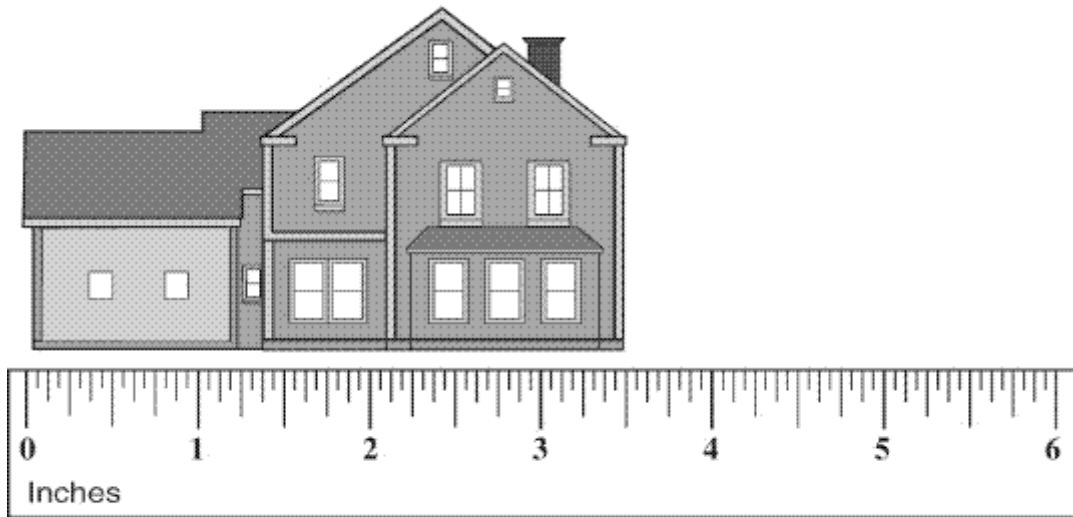
$$\frac{1}{4} \text{inch} = 6 \text{ feet}$$

The scale for the diagram is $\frac{1}{4}$ inch = 6 feet. What is the actual length represented in the drawing?

F. 18.0 feet
G. 19.5 feet
H. 84.0 feet
I. 144.0 feet

31 Dante drove 187 miles from his home to a national park at an average speed of 44 miles per hour. How long did Dante spend driving to the national park?

A. 4 hours
B. 4 hours 15 minutes
C. 4 hours 25 minutes
D. 4 hours 35 minutes

32 Allan's miniature train travels at a rate of 10 meters per minute. At this rate, how long will the train take to travel a total of 84 meters?

F. 94.0 minutes
G. 74.0 minutes
H. 8.4 minutes
I. 7.4 minutes

GR 7 Advanced - Topic III Assessment
TEACHER ANSWER KEY

7th Grade Advanced Topic III, Proportionality, MA.7.A.1.1, MA.7.A.1.2, MA.7.A.1.3, MA.7.A.1.4, MA.7.A.1.5, MA.7.A.1.6
Answer Section

MULTIPLE CHOICE

1 ANS: C

	Feedback
A	Dollars per bracelet is not constant
B	Miles per minute is not constant
C	**Correct**
D	Pencils per box is not constant

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.1 Distinguish between situations that are proportional or not proportional and use proportions to solve problems.   STA: MA.7.A.1.1
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222095

2 ANS: F

	Feedback
F	**Correct**
G	Confused with cross multiplication
H	Considered the addition of the same number as proportional
I	Considered the addition of the same number as proportional and confused with cross multiplication

PTS: 1   DIF: H   REF: Math
OBJ: MA.7.A.1.1 Distinguish between situations that are proportional or not proportional and use proportions to solve problems.   STA: MA.7.A.1.1
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222711

3 ANS: C

	Feedback
A	Found the number of loaves that can be made with 7 cups of bananas
B	7 cups bananas ÷ 2 cups flour
C	**Correct**
D	$7 \times 2\frac{1}{3} = 7 \times \frac{7}{3} = \frac{49}{3} = 16\frac{1}{3}$

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.1 Distinguish between situations that are proportional or not proportional and use proportions to solve problems.   STA: MA.7.A.1.1
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222913

4 ANS: I

	Feedback
F	$\frac{109}{1} \neq \frac{100}{1}$
G	$\frac{25}{1} \neq \frac{20}{1}$
H	$\frac{\$1.98}{1} \neq \frac{\$16.99}{10}$
I	**Correct**

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.1 Distinguish between situations that are proportional or not proportional and use proportions to solve problems.   STA: MA.7.A.1.1
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222969

5 ANS: D

	Feedback
A	$5 \div 5 = 1$ so $1 \div 8$
B	Inverted divisor and dividend
C	If $5 \div 5,$ then $8 \div 8$
D	**Correct**

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.1 Distinguish between situations that are proportional or not proportional and use proportions to solve problems.   STA: MA.7.A.1.1
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Low | Grade 07   MSC: ItemCode: MF222916

6 ANS: F

	Feedback
F	**Correct**
G	The population was multiplied by 0.03 rather than 0.003
H	The population was multiplied by 0.3 rather than 0.003
I	The population was divided by 0.3

PTS: 1   DIF: H   REF: Math
OBJ: MA.7.A.1.2 Solve percent problems, including problems involving discounts, simple interest, taxes, tips and percents of increase or decrease.   STA: MA.7.A.1.2
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF201177

7 ANS: D

	Feedback
A	Found interest earned for one year
B	Found total interest earned for two years
C	Found amount in account after one year
D	**Correct**

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.2 Solve percent problems, including problems involving discounts, simple interest, taxes, tips and percents of increase or decrease.   STA: MA.7.A.1.2
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF201842

8 ANS: I

	Feedback
F	Converted 40% to $40
G	Converted 40% to 4; divided $400 by 4
H	Determined the discount
I	**Correct**

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.2 Solve percent problems, including problems involving discounts, simple interest, taxes, tips and percents of increase or decrease.   STA: MA.7.A.1.2
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF214193

9 ANS: C   PTS: 1   DIF: H   REF: Topic III
OBJ: MA.7.A.1.2 Solve percent problems, including problems involving discounts, simple interest, taxes, tips and percents of increase or decrease.   STA: MA.7.A.1.2
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: Extra Item Bank

10 ANS: F

	Feedback
F	**Correct**
G	$9 \times 11.65 - 20$
H	Uses 0.02 instead of 0.20
I	Price without discount

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.2 Solve percent problems, including problems involving discounts, simple interest, taxes, tips and percents of increase or decrease.   STA: MA.7.A.1.2
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF215368

11 ANS: C   PTS: 1   DIF: Moderate   REF: Topic III
OBJ: MA.7.A.1.2 Solve percent problems, including problems involving discounts, simple interest, taxes, tips and percents of increase or decrease   STA: MA.7.A.1.2
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: Extra Item Bank

12 ANS: H

	Feedback
F	Does not understand how to find similar objects
G	Does not understand how to find similar objects
H	**Correct**
I	Similar and congruent

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.3 Solve problems involving similar figures.   STA: MA.7.A.1.3
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF210989

13 ANS: C

	Feedback
A	Increased one side only
B	Added the scale factor
C	**Correct**
D	Added the scale factor doubled

PTS: 1   DIF: L   REF: Math
OBJ: MA.7.A.1.3 Solve problems involving similar figures.   STA: MA.7.A.1.3
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222917

14 ANS: I

	Feedback
F	Made *RS* equal to 8 because the triangle is isosceles; used the same measure given for the corresponding side
G	Used the same measure given for the corresponding side
H	Made $RS = 8$ and used scale factor
I	**Correct**

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.3 Solve problems involving similar figures.   STA: MA.7.A.1.3
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222918

15 ANS: A   PTS: 1   DIF: Moderate   REF: Topic III
OBJ: MA.7.A.1.3 Solve problems involving similar figures   STA: MA.7.A.1.3
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: Extra Item Bank

16 ANS: I   PTS: 1   DIF: Moderate   REF: Topic III
OBJ: MA.7.A.1.3 Solve problems involving similar figures   STA: MA.7.A.1.3
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity
KEY: Webb: Moderate | Grade 07   MSC: Extra Item Bank

17 ANS: A

	Feedback
A	**Correct**
B	Chose a slope of 3
C	Inverted axes
D	Inverted axes with a slope of 3 mph

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.4 Graph proportional relationships and identify the unit rate as the slope of the related linear function.   STA: MA.7.A.1.4
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222283

18 ANS: I

	Feedback
F	Used the numerators of the slopes given but reverted the change
G	Used the numerators of the slopes given
H	Reverted the change
I	**Correct**

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.4 Graph proportional relationships and identify the unit rate as the slope of the related linear function.   STA: MA.7.A.1.4
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222345

19 ANS: B

	Feedback
A	$5 \div 6$
B	**Correct**
C	Estimated 1.50 for the ordinate when $x = 1$
D	$5 \div 2$

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.4 Graph proportional relationships and identify the unit rate as the slope of the related linear function.   STA: MA.7.A.1.4
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222349

20 ANS: F

	Feedback
F	**Correct**
G	Divided 1 by 6
H	Misread point as (6, 14) so divided 14 by 6
I	Cost of package

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.4 Graph proportional relationships and identify the unit rate as the slope of the related linear function.   STA: MA.7.A.1.4
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222921

21 ANS: C

	Feedback
A	Divided 2 by 5
B	Read $(5, 10.5)$
C	**Correct**
D	Read $(2, 5)$ and subtracted 2 from 5

PTS: 1   DIF: H   REF: Math
OBJ: MA.7.A.1.4 Graph proportional relationships and identify the unit rate as the slope of the related linear function.   STA: MA.7.A.1.4
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222285

22 ANS: G

	Feedback
F	Function table for $y = 2x + 1$
G	**Correct**
H	Function table for $y = x^2$
I	Function table for $y = 12 \div x$

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.5 Distinguish direct variation from other relationships, including inverse variation.
STA: MA.7.A.1.5
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222287

23 ANS: C

	Feedback
A	Chose a direct variation
B	Chose a linear relationship
C	**Correct**
D	Chose a direct variation

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.5 Distinguish direct variation from other relationships, including inverse variation.
STA: MA.7.A.1.5
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222122

24 ANS: I

	Feedback
F	Hourly wage varies directly with time worked $(y = 15x)$
G	Monthly rent varies directly with time renting $(y = 500x)$
H	Airtime charges varies directly with time used in each call $(y = 0.35x)$
I	**Correct**

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.5 Distinguish direct variation from other relationships, including inverse variation.
STA: MA.7.A.1.5
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222288

25 ANS: D

	Feedback
A	Chose a direct variation: $y = 100x$
B	Chose a direct variation: $y = \frac{1}{3}x$
C	Chose a direct variation: $y = \frac{1}{2}x$
D	**Correct**

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.5 Distinguish direct variation from other relationships, including inverse variation.
STA: MA.7.A.1.5
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222356

26 ANS: F

	Feedback
F	**Correct**
G	Does not understand that horizontal lines do not represent direct variations because y does not change as x increases
H	Chose the graph for $y = |x|$ because it passes through the origin
I	Does not understand that vertical lines do not represent direct variations because x does not change as y increases

PTS: 1   DIF: L   REF: Math
OBJ: MA.7.A.1.5 Distinguish direct variation from other relationships, including inverse variation.
STA: MA.7.A.1.5
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF222817

27 ANS: A

	Feedback
A	**Correct**
B	Used inches as scale
C	Reversed inches and feet in scale
D	$4 \times 8 = 32,$ so chose scale with 4 and 8

PTS: 1   DIF: L   REF: Math
OBJ: MA.7.A.1.6 Apply proportionality to measurement in multiple contexts, including scale drawings and constant speed.   STA: MA.7.A.1.6
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 06   MSC: ItemCode: MF200629

28 ANS: H

	Feedback
F	Divides 5.2 by 1.5 instead of multiplying
G	Adds 5.2 and 1.5
H	**Correct**
I	Confuses 90 minutes with 2 hours

PTS: 1   DIF: L   REF: Math
OBJ: MA.7.A.1.6 Apply proportionality to measurement in multiple contexts, including scale drawings and constant speed.   STA: MA.7.A.1.6
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF213042

29 ANS: B

	Feedback
A	Didn't use scale correctly, just used "1 inch" and took $\frac{1}{2}$ and $15\frac{1}{2}$
B	**Correct**
C	$15 \div 5 = 3;\ 3 + \frac{1}{2} = 3\frac{1}{2}$
D	Didn't use scale, just simply changed miles to inches and multiplied $\frac{1}{2} \times \frac{1}{5}$

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.6 Apply proportionality to measurement in multiple contexts, including scale drawings and constant speed.   STA: MA.7.A.1.6
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF214216

30 ANS: H

	Feedback
F	3×6
G	3.25×6
H	**Correct**
I	Length of ruler converted

PTS: 1   DIF: M   REF: Math
OBJ: MA.7.A.1.6 Apply proportionality to measurement in multiple contexts, including scale drawings
and constant speed.   STA: MA.7.A.1.6
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF214344

31 ANS: B

	Feedback
A	$187 \div 44$ (rounded)
B	**Correct**
C	4.25 as hours and minutes
D	4 hours and $60 - 25$ minutes

PTS: 1   DIF: L   REF: Math
OBJ: MA.7.A.1.6 Apply proportionality to measurement in multiple contexts, including scale drawings
and constant speed.   STA: MA.7.A.1.6
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF215572

32 ANS: H

	Feedback
F	Added 10
G	Subtracted 10
H	**Correct**
I	Subtracted 10, then divided by 10

PTS: 1   DIF: L   REF: Math
OBJ: MA.7.A.1.6 Apply proportionality to measurement in multiple contexts, including scale drawings
and constant speed.   STA: MA.7.A.1.6
TOP: MA.7.A.1 Develop an understanding of and apply proportionality, including similarity.
KEY: Webb: Moderate | Grade 07   MSC: ItemCode: MF221770