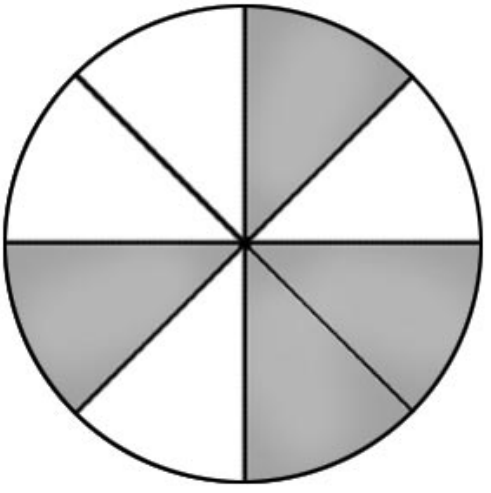
Level M - Form 1 - Applied Mathematics: Number and Number Operations

Sample Question



What fraction of this figure is shaded?

A $\frac{1}{2}$

B $\frac{1}{8}$

C $\frac{1}{4}$

D $\frac{3}{8}$

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The sign shows the daily rates and business discounts of four car rental companies. Study the sign. Then do Numbers 1 through 4.

RENTAL CAR RATES

Company	Daily Rate (Includes Taxes)	Business Discount
Cars R Us	$48.50	$\frac{1}{6}$ off
Rental Cars Plus	$42.75	$\frac{1}{4}$ off
Luxury Rentals	$45.00	$\frac{1}{10}$ off
Cars N More	$56.00	$\frac{1}{8}$ off

1. Which company offers the greatest discount for a business rental?
   - A Cars R Us
   - B Rental Cars Plus
   - C Luxury Rentals
   - D Cars N More

2. Which decimal is equivalent to the business discount offered by Cars N More?
   - F 0.08
   - G 0.18
   - H 0.125
   - J 0.124

3. Helen rented a car for one day for non-business purposes. She paid exactly the amount due with five-dollar bills. From which company did Helen rent her car?
   - A Cars R Us
   - B Rental Cars Plus
   - C Luxury Rentals
   - D Cars N More

4. A business executive owes $224.44 for a weekly car rental. What amount should he write on his check?
   - F two hundred twenty-four and $\frac{44}{100}$
   - G twenty-two and $\frac{44}{10}$
   - H twenty-four and $\frac{44}{1000}$
   - J two hundred four and $\frac{44}{100}$

5. The gas gauge in Craig's car looks like this. What fraction of the gas tank is filled?

A between $\frac{1}{4}$ and $\frac{1}{2}$

B between $\frac{1}{2}$ and $\frac{3}{4}$

C between $\frac{1}{3}$ and $\frac{2}{3}$

D between $\frac{1}{8}$ and $\frac{1}{2}$

6. What does the 5 mean in 65,174?

F 50

G 500

H 5,000

J 50,000

7. What operation symbol goes in the box to make the number sentence true?

$7 + (10 \square 2) = 19$

A +

B –

C x

D ÷

8. If the same number is used in both boxes, which statement would be true?

F If $\square + 5 = 9$, then $\square - 9 = 5$.

G If $\square - 5 = 9$, then $5 - \square = 9$.

H If $14 - \square = 8$, then $\square + 8 = 14$.

J If $\square + 8 = 14$, then $8 - \square = 14$.

9. Which number is a factor of both 16 and 44?

A 3

B 4

C 6

D 8

10. Which of these numbers is five thousand one hundred four?

F 5,104

G 5,140

H 514

J 51,004

11. Which group of decimals is in order from least to greatest?

A 0.1, 0.02, 0.03

B 0.03, 0.02, 0.1

C 0.1, 0.03, 0.02

D 0.02, 0.03, 0.1

12. Which number below has the digit 9 in the hundreds place?

F 42,790

G 39,571

H 32,945

J 96,153

13. What sign goes in the box to make this sentence true?

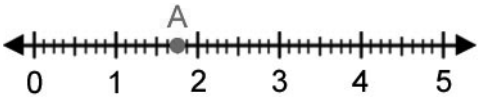
If 54 ÷ 9 = 6, then 9 $\square$ 6 = 54.

A +
B –
C ×
D ÷

14. Pamela has one ten-dollar bill, four one-dollar bills, three quarters, and six dimes. How much money does Pamela have?

F $14.35
G $14.90
H $15.25
J $15.35

15. What is the value of point A on the number line?



A $1\frac{3}{5}$

B $1\frac{3}{4}$

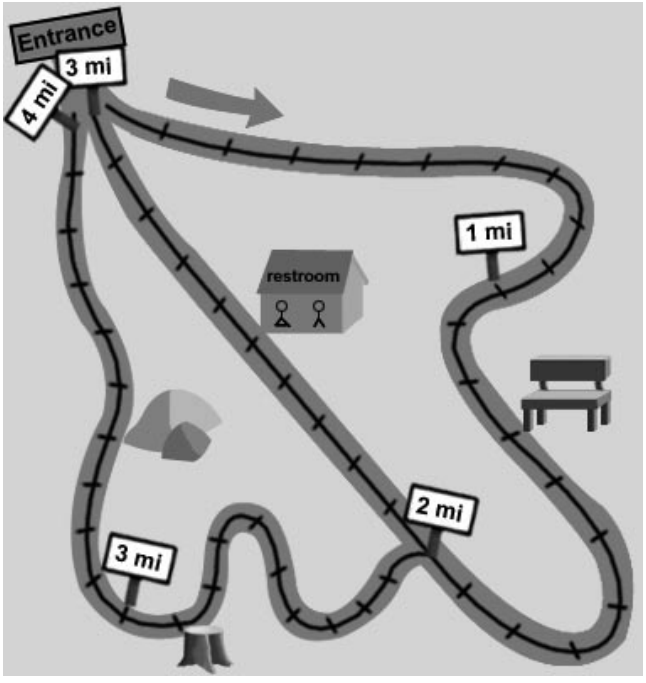
C $2\frac{1}{2}$

D $2\frac{1}{4}$

16. A car's odometer reads 20053. How many miles are on the car?

F two thousand five hundred three
G two thousand fifty-three
H two hundred thousand fifty-three
J twenty thousand fifty-three

As part of a fitness routine, Tess started walking in a park each day. The map shows the park's trails. Study the map. Then do Numbers 17 through 19.



17. At what distance from the entrance is the park bench?

A $1\frac{3}{4}$ miles

B $1\frac{3}{5}$ miles

C $1\frac{3}{8}$ miles

D $1\frac{3}{10}$ miles

18. Tess walked $2\frac{1}{2}$ miles and then stopped at the restrooms. Which decimal is equivalent to $2\frac{1}{2}$?

F 2.2

G 2.12

H 2.5

J 2.25

19. On her first day, Tess walked from the entrance to the split at the two-mile mark and back to the entrance by the longer trail. If her goal is to walk 20 miles each week, what fraction of her goal has she already completed?

A $\frac{1}{5}$

B $\frac{3}{20}$

C $\frac{1}{20}$

D $\frac{1}{4}$

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20. Which of the following has the same value as the expression in the box?

$\boxed{4 \times 1}$

F $4 + 1$

G $4 \div 0$

H $4 - 1$

J $4 + 0$