Houston ISD

OnTrack

Test Booklet

21-22_HISD_DLA_G5_MTH_E_Dec6-17

Name

Answer Key.

Date

1. An expression is given.

$$7 \times (9 \div 3) + 5$$

Which statement is true about the parentheses in this expression?

A. The parentheses indicate that 7×9 should be solved first.

B. The parentheses indicate that $9 \div 3$ should be solved last.

C. The parentheses indicate that $3 + 5$ should be solved last.

D. The parentheses indicate that $9 \div 3$ should be solved first.

2. A chef opened a case of eggs.

- The case contained 6 cartons of eggs with a dozen eggs in each carton.
- The chef threw 5 eggs in the trash because they were broken.
- Then the chef used 14 eggs to make breakfast.

Which expression can be used to show that there are 53 eggs still in the case?

F. $6 \times 12 - 5 + 14$

G. $6(12) - 5(14)$

H. $6 \times 12 - (5 + 14)$

J. $6 + 12 - 5 + 14$

3. Daisy spent $6.84 on four snow cones. She spent the same amount on each snow cone.

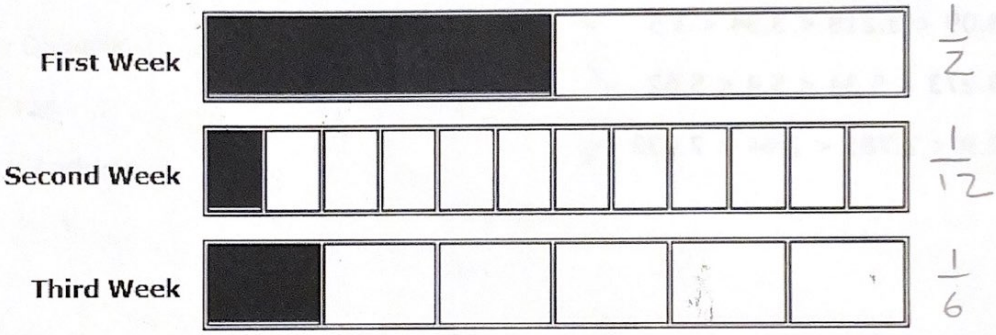
How much did Daisy spend on each snow cone?

Record your answer in the space provided.

1.71

$$4\overline{)6.84} \quad 1.71$$
$$4$$
$$28$$
$$28$$
$$04$$
$$4$$
$$0$$

4. Mr. Jackson purchased some cars for his car lot at the beginning of the month. The model is shaded to show the fraction of these cars that Mr. Jackson sold in each of the first three weeks of the month.



$\frac{1}{2}$

$\frac{1}{12}$

$\frac{1}{6}$

What fraction of the cars Mr. Jackson purchased was sold during these three weeks?

F. $\frac{1}{4}$

G. $\frac{3}{4}$

H. $\frac{3}{20}$

J. $\frac{1}{12}$

$$\frac{1}{2} + \frac{1}{12} + \frac{1}{6}$$
$$= \frac{6}{12} + \frac{1}{12} + \frac{2}{12}$$
$$= \frac{9}{12}$$
$$= \frac{3}{4}$$

5. Jayson subtracted 38 from the product of 325 and 24. What is this difference?

A. 4,536

B. 7,762

C. 7,800

D. 8,070

6. Which lists do NOT show the numbers in order from least to greatest?

Select all correct answers.

F. 4.387 < 4.489 < 4.631 < 4.78

G. 7.315 < 7.38 < 7.6 < 7.604

H. 8.9 < 8.732 < 8.51 < 8.328

J. 3.09 < 3.218 < 3.34 < 3.5

K. 5.273 < 5.34 < 5.4 < 5.62

L. 2.9 < 2.781 < 2.64 < 2.639

7. The table below shows the scores for the women's gymnastics competition at the 2016 Summer Olympics.

2016 Summer Olympics

Gymnast	Score
Simone Biles	14.599
Gabby Douglas	15.130
Wang Yan	16.79
Rebeca Andrade	15.95

Which gymnast's score is 16.0 when rounded to the tenths place?

A. Simone Biles

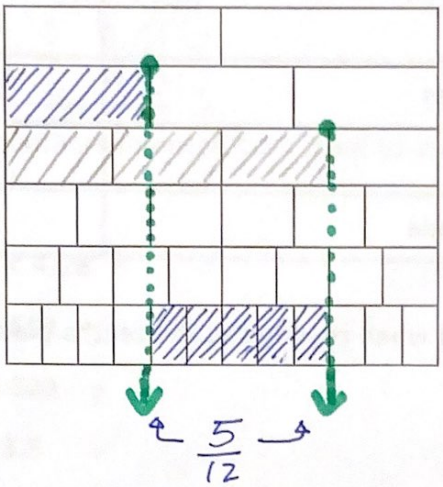
B. Gabby Douglas

C. Wang Yan

D. Rebeca Andrade

GO ON SIGUE

8. Gloria used the fraction strips shown below to help her determine the difference between $\frac{3}{4}$ and $\frac{1}{3}$.



= difference

What is $\frac{3}{4} - \frac{1}{3}$?

F. $\frac{2}{6}$

G. $\frac{4}{8}$

H. $\frac{5}{12}$

J. $\frac{2}{1}$

Solution Steps

OR

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

$$= \frac{9}{12} - \frac{4}{12}$$

$$= \frac{5}{12}$$

Calculations

① Find LCD: (lowest common denominator)

4 |	4, 8, 12
3 |	3, 6, 9, 12

= denominator of 12

② Find equivalent fractions:

$\frac{3}{4} = \frac{?}{12} = \frac{9}{12}$ (×3)

$\frac{1}{3} = \frac{?}{12} = \frac{4}{12}$ (×4)

57%

9. In a high school football stadium, there are 3,892 seats. The stadium has 14 sections. Each section has the same number of seats.

How many seats are in each section?

If taking this assessment on paper: Fill in the bubbles on your answer document. Be sure to use the correct place value.

If taking this assessment online: Record your answer in the Keypad provided. Be sure to use the correct place value.

$$14 \overline{)3892} = 278$$

28
109
98
112

3 2
14 14 14
9 8 7
112 98

47%

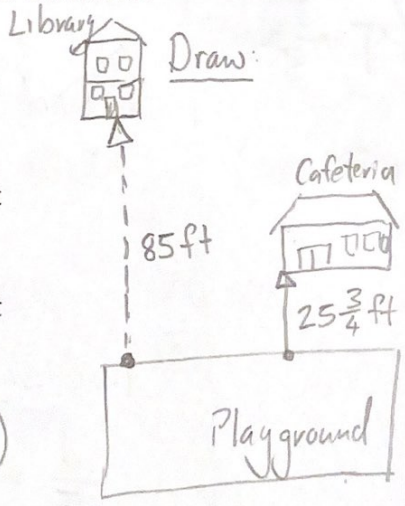
10. The library is located 85 feet due north of the school playground. The cafeteria is located $25\frac{3}{4}$ feet due north of the school playground. What is the distance in feet between the library and the cafeteria?

F. $59\frac{3}{4}$ ft

G. $60\frac{3}{4}$ ft

H. $60\frac{1}{4}$ ft

J. $59\frac{1}{4}$ ft



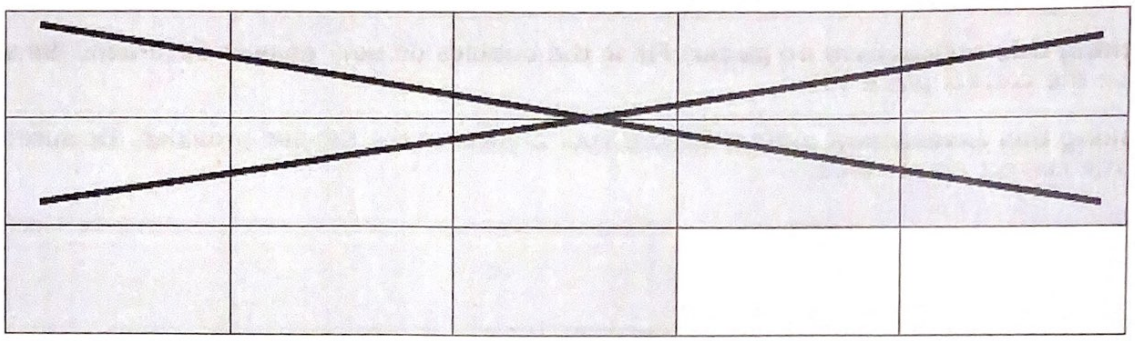
Solution Steps

Library − cafeteria
$= 85\text{ft} - 25\frac{3}{4}\text{ft}$
$= 59\frac{1}{4}\text{ft}$

Calculations

7 14
4
85 4/4
$-\ 25\frac{1}{4}$
$= 59\frac{3}{4}$

11. The shaded part of the model represents a fraction. Another fraction was subtracted from the first fraction.



Which expression does the model represent?

A. $\frac{13}{15} - \frac{1}{10}$

B. $\frac{10}{15} - \frac{3}{15}$

C. $\frac{10}{15} - \frac{2}{15}$

D. $\frac{13}{15} - \frac{2}{3}$

Solution

$\frac{13}{15} - \frac{10}{15}$

$= \frac{13}{15} - \frac{2}{3}$

Calculations

① First fraction = $\frac{\text{Shaded}}{\text{Total}}$

$= \frac{13}{15}$

Second fraction = $\frac{\text{"X"}}{\text{Total}}$

$= \frac{10}{15}$

② Find simplest fractions:

$\frac{10}{15} \overset{\div 5}{=} \frac{2}{3}$

36%

12. The table shows the heights of four trees in Mrs. Rivera's yard.

Tree Heights

Tree	Height (feet)
Olive	48
Oak	$44\frac{1}{4}$
Cherry	13.84
Palm	$2\frac{3}{10}$

How much more is the combined height in feet of the olive tree and cherry tree than the oak tree and palm tree?

If taking this assessment on paper: Fill in the bubbles on your answer document. Be sure to use the correct place value.

If taking this assessment online: Record your answer in the Keypad provided. Be sure to use the correct place value.

Solution

(O + C) − (Oak + P)

(48 + 13.84) − (44.25 + 2.3)

= 61.84 − 46.55

= 15.29

Calculations

① 48 + 13.84 = 61.84

② 44.25 + 2.3 = 46.55

61.84 − 46.55 = 15.29

13. Robert had 260 nails. He gave 50 of these nails to his brother and put the rest of the nails into bags. Each bag contained 35 nails.

Which equation can be used to find b, the number of bags Robert used?

A. $b = (260 + 50) - 35$

B. $b = (260 - 50) \div 35$

C. $b = (260 + 50) \times 35$

D. $b = (260 - 50) + 35$

14. Four classes are having a contest to see who can bring the most food for the school's annual food drive. The table shows the total weights of the food collected by each class.

Weights of Food Collected

Class	Weight of Food (pounds)
Ms. Fox	115.6
Ms. Williams	114.52
Mr. Henriquez	115.305
Mr. Martinez	114.483

In what position would Mr. Henriquez's class be if the weights of the food collected in pounds were ordered from greatest to least?

F. First

G. Second

H. Third

J. Fourth

F 115.6
H 115.305
W 114.52
M 114.483

Greatest ↓ Least

GO ON / SIGUE

42%

15. Jack has a box of 804 craft sticks for making picture frames. He will use 16 craft sticks to make each picture frame.

What is the greatest number of picture frames Jack can make using these craft sticks?

Record your answer in the space provided.

50

$16 \overline{)804}$ → 050, 80, 04 → 16 R4

26%

16. Which of the following expressions are equivalent to 52?

Select all correct answers.

F. 5(12 – 3) + 7(9 – 8)

G. 3(12) + 4(6 – 2)

H. 9[5 – (3 – 2) + 4] + 16

J. 9(13 – 5) – 5(7 – 3)

K. 76 – [3(5 + 2) + 2(8 – 6)]

$(5 \times 9) + 7 = 45 + 7 = 52$

$36 + 16 = 52$

$= 9 \times (5 - 1 + 4) + 16 = 9 \times 8 + 16 = 72 + 16$

$= 72 - 20 = 52$

$= 76 - [3 \times 7 + 4] = 76 - [21 + 4]$

$= 76 - 25$

17. Mr. Smith wrote this number on the board.

2.754

What is this number rounded to the nearest hundredth?

Record your answer in the space provided.

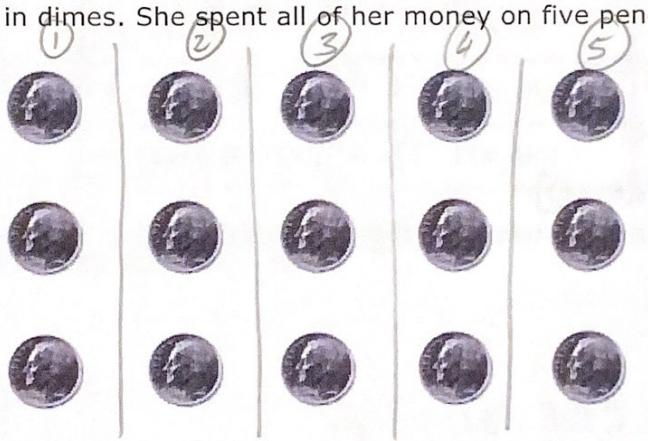
2.75

Tenths → hundredths → Thousandths

2.754

The 4 in the thousandths place will round down, leaving 2.75

18. Kassie had $1.50 in dimes. She spent all of her money on five pencils.



Which equation can be used to find the amount of money Kassie spent for each pencil?

F. 1.50 × 3 = 4.50

G. 1.50 ÷ 5 = 0.30

H. 1.50 ÷ 3 = 0.50

J. 1.50 × 5 = 7.50

$1.50 ÷ 5 = 0.30

19. What is the value of this expression?

$$[52 - (7 \times 4)] \div 8$$

If taking this assessment on paper: Fill in the bubbles on your answer document. Be sure to use the correct place value.

If taking this assessment online: Record your answer in the Keypad provided. Be sure to use the correct place value.

Solution

$[52-(7\times4)] \div 8$

$= [52 - 28] \div 8$

$= 24 \div 8$

$= 3$

Calculations + Notes

Remember: Order of Operatio

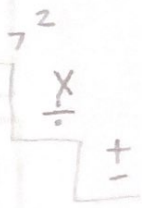
P ( )

E

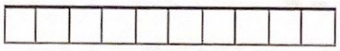
MD →

AS →

(working Left to right)

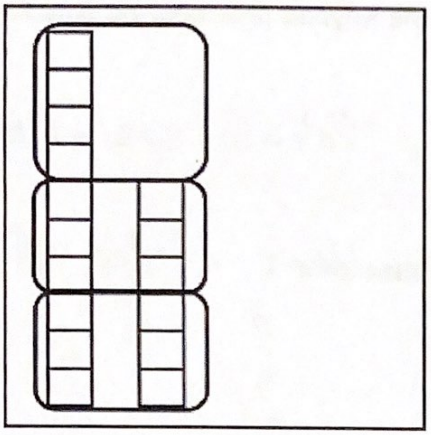


20. Lauren used this model to represent 1 whole.

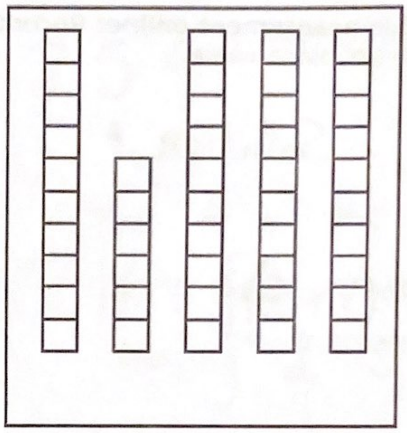


Which model represents 1.6 × 3?

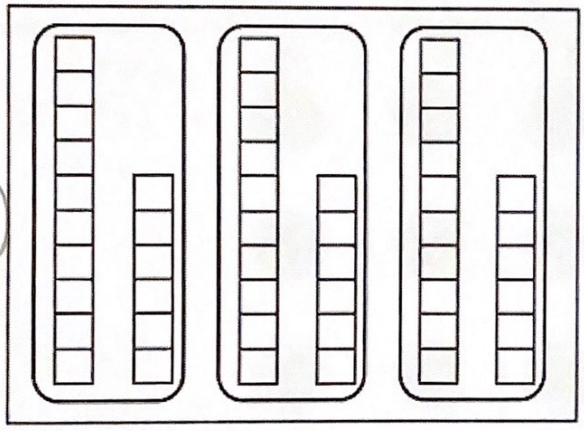
F.



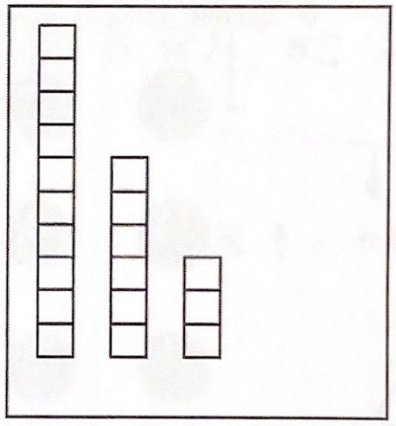
H.



G.



J.



21. Courtney ate fifty-seven hundredths of a pound of strawberries.

How is this number written in expanded notation?

Select all correct answers.

A. $(7 \times \frac{1}{10}) + (5 \times \frac{1}{100})$ 0.75

B. $(7 \times 100) + (5 \times 10)$ 750

C. $(5 \times \frac{1}{10}) + (7 \times \frac{1}{100})$ 0.57

D. $(50 \times 10) + (7 \times 100)$ 500 + 700

E. $(5 \times 0.1) + (7 \times 0.01)$ 0.57

F. $(50 \times \frac{1}{10}) + (7 \times \frac{1}{100})$ 0.57

Solution

0.57

$= (5 \times \frac{1}{10}) + (7 \times \frac{1}{100})$

$= (5 \times 0.1) + (7 \times 0.01)$

43%

22. Blanca jogged 8 days last month. She jogged 1.25 miles on each of these days and burned 140 calories per mile while jogging.

How many calories did Blanca burn by jogging last month?

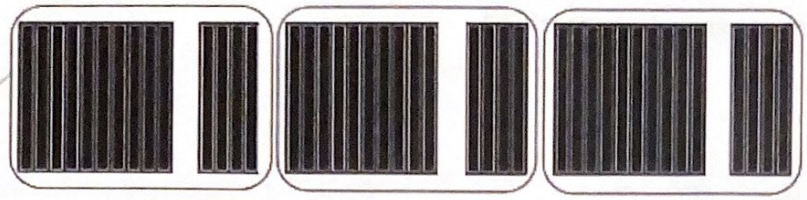
Record your answer in the space provided.

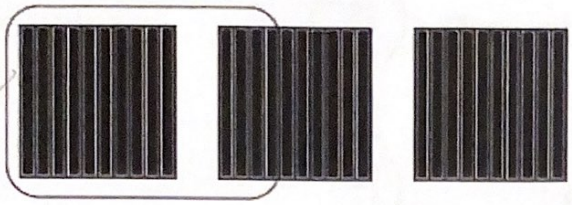
1400

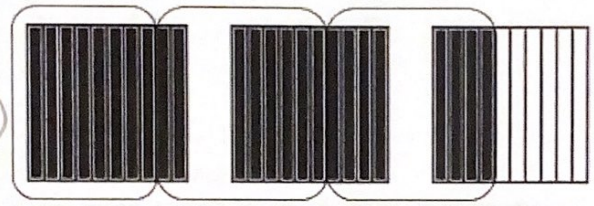
$8 \times 1.25 = 10$

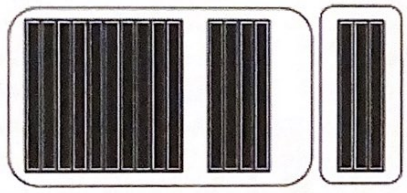
$10 \times 140 = 1400$

23. Which model represents 2.4 ÷ 3?

A. 

B. 

C. 

D. 

1.4 × 3

2.4 ÷ 3

Remember,
The "windows" show the groups.
The black bars show 1/10.

24. Mr. Hernandez paid $29.87 for each jacket and $14.65 for each shirt he bought. Mr. Hernandez bought 3 jackets and 7 shirts.

How much money did he spend?

F. $89.61

G. $102.55

H. $133.56

J. $192.16

Solution

($29.87 × 3) + ($14.65 × 7)

= 89.61 + 102.55

= $192.16

Calculation

① 29.87 × 3 = $89.61

14.65 × 7 = 102.55

② 102.55 + 89.61 = $192.16

GO ON / SIGUE

24%

25. Six students each wrote down a number between 50 and 70. The list shows the numbers they wrote.

- Josie - 51
- Caleb - 53 Prime
- Ariel - 55
- Nathan - 57
- Melissa - 61 Prime
- Bethany - 69

Which students wrote down a prime number?

Select all correct answers.

A. Josie

B. Caleb

C. Ariel

D. Nathan

E. Melissa

F. Bethany

Remember: ① Prime only has 2 factors, the number itself and 1.

② Composite has more than 2 factors.

③ All even numbers, except 2, are composite.

④

Prime	Composite
2	All multiples of these numbers.
3	
5	
7	
11	
13	

51 → Composite: (51×1) (17×3)

53 → prime

55 = Composite (55×1) (11×5)

61 = prime (61×1)

69 = composite (69×1) (23×3)

57 = Composite (57×1) (19×3)

GO ON SIGUE

0.8

26. Lisa bought 0.8 of a pound of chocolate. She ate 6 tenths of the chocolate she bought. Lisa represented how much of a whole pound of chocolate she has eaten. In the model, a flat represents one whole pound of chocolate.

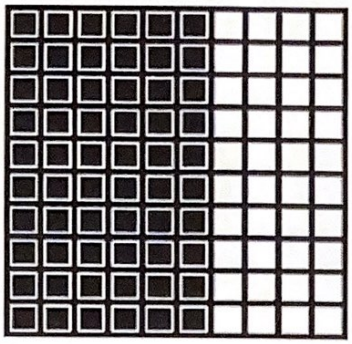
Which model could be the one Lisa created?

1 pound

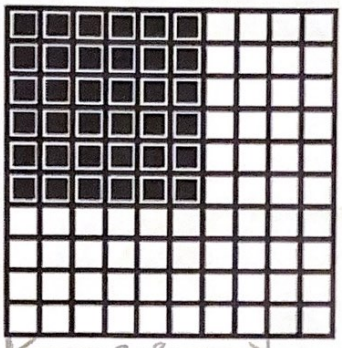
0.8

0.6

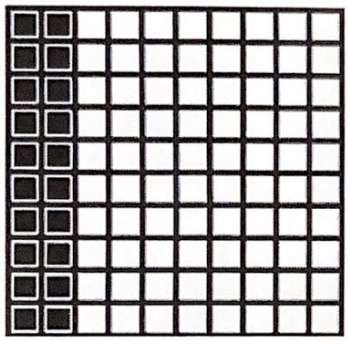
F.



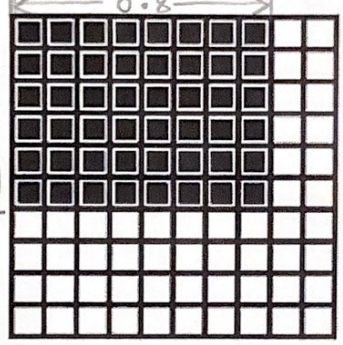
H.



G.



J.



0.8×0.6

$= 0.48$

27. Marissa saved a total of $75.60 over 12 weeks. She saved the same amount of money each week. How much money did Marissa save each week?

A. $6.03

B. $6.30

C. $0.63

D. $6.36

$\$75.60 \div 12$ weeks

$= \$6.30$

$$\begin{array}{r} 06.30 \\ 12 \overline{)\,75.60} \\ \underline{72} \\ 36 \\ \underline{-36} \\ 00 \end{array}$$

① Divide
Multiply
Subtract
Bring Down

② $1 \times 12 = 12$
$2 \times 12 = 24$
$3 \times 12 = 36$
$4 \times 12 = 48$
$5 \times 12 = 60$
$6 \times 12 = 72$
$7 \times 12 = 84$
$8 \times 12 = 96$

28. Tristan was given a group of numbers and asked to circle all the prime numbers. His work is shown below.

(See question 25)

(23)	10	39	24
(13)	(17)	63	(89)
2	81	(31)	21

Which prime number does Tristan still need to circle?

F. 2

G. 39

H. 63

J. None

56%

29. Each of the 87 fifth-grade students in Mr. Cooper's reading classes read the book *Spy Camp*, which has 352 pages.

After completing the book, how many total pages did all of the students in Mr. Cooper's classes read?

Record your answer in the space provided.

30,624

Solution

87 students x 352 pages

= 30,624 pages

```
  41
  31
 352
x 87
----
2464
28160
+
-----
30,624
```


GO ON / SIGUE

30. A math problem is shown.

$$4.76 \div 68$$

What is the quotient?

F. 7

G. 0.7

H. 0.07

J. 0.007

Remember

Quotient

Divisor | Dividend

So 68 | 4.76

0.07

476

0

5

68

7

476

31. Roderick wrote the expression shown.

$$12 \div 3 + 2(32 - 18)$$

What do these parentheses indicate in the expression?

A. Subtract 18 from 32 before multiplying by 2.

B. Multiply 2 by 32 before subtracting 18.

C. Add 3 and 2 together before subtracting 18 from 32.

D. Divide 12 by 3 before adding 2.

Solve me first!

So:

$12 \div 3 + 2 \times (32-18)$

32. Mr. Newman packed 16 large-sized ornaments and 29 medium-sized ornaments into a box. He packed 13 boxes like this. Mr. Newman used this equation to find *x*, the number of ornaments he packed into all the boxes.

$$x = (16 + 29)13$$

How many ornaments did Mr. Newman pack into the boxes?

Record your answer in the space provided.

585

Solution

$x = (16+29) \times 13$

$= 45 \times 13$

$= 585$

Calculations

step ② step ①

$\begin{array}{r} {\scriptstyle 1} \\ 45 \\ \times\ 13 \\ \hline 135 \\ 450 \\ \hline 585 \end{array}$ $\qquad$ $\begin{array}{r} {\scriptstyle 1} \\ 16 \\ +\ 29 \\ \hline 45 \end{array}$

33. Four hundred forty-two students were placed into 24 groups with about the same number of students in each group.

Using compatible numbers, what is the best estimate of the number of students in each group?

A. 20, because 500 ÷ 25 = 20

B. 18, because 450 ÷ 25 = 18

C. 12,500, because 500 × 25 = 12,500

D. 11,250, because 450 × 25 = 11,250

Remember, ① compatible numbers = estimate using numbers which are easy to solve using mental math

② Best estimate = closest estimate

GO ON / SIGUE

54%

34. During the 2021 baseball season, Yuli Gurriel had a batting average of 0.319. What is the value of the digit in the thousandths place?

Record your answer in the space provided.

0.009

0.319

	T	H	Th
Tenths = 0.3			
Hundredths = 0.01			
Thousandths = 0.009			

35. Tracy played tennis for $1\frac{3}{4}$ hours on Saturday afternoon. She played tennis 3.2 hours on Sunday. About how many hours did Tracy play tennis during the weekend?

A. 3 hours

B. 4 hours

C. 5 hours

D. 6 hours

C = Estimate using rounding or compatible numbers.

So: $1\frac{3}{4}$ hours + 3.2 hours

Estimate

$1\frac{3}{4} \rightarrow 2$ hours

$3.2 \rightarrow 3$ hours

$= 5$ hours

36. Michelle purchased 10 feet of string lights to decorate her Christmas tree. She used 7.625 feet of these string lights on the tree.

What was the length of string lights in feet that Michelle had left?

F. 17.625 ft

G. 7.625 ft

H. 3.625 ft

J. 2.375 ft

10 ft − 7.625 ft

= 2.375 ft

9 9
10 10 10
10.000
−7.625
2.375