Houston ISD

Ability grows with effort

OnTrack

Test Booklet

21-22_HISD_SNAP1_G5_MTH_E_Oct25-29

Name Answer Key

Date

1. Yordan Álvarez's batting average was represented by three hundred seventeen thousa

Which of the following are ways to represent the value of the digit in the hundredths pla

Select all correct answers.

A. 0.3

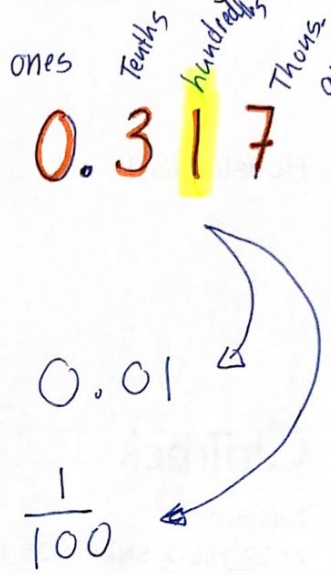
B. 0.01

C. 0.007

D. $(7 \times \frac{1}{1000})$

E. $(1 \times \frac{1}{100})$

F. $(3 \times \frac{1}{10})$



students used water for a science experiment. The amounts of water, in gallons, ch student used is listed in the table.

Science Experiment

Student	Water (gallons)
Deidra	1.34
Martin	1.82
Charlotte	$1\frac{9}{10}$
Kendra	1.62
Silvia	$1\frac{3}{4}$

How much more water, in gallons, did Charlotte and Martin use than Silvia and Deidra?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

Solution

(Charlotte + Martin) − (Silvia + Deidra)

$= (1\frac{9}{10} + 1.82) - (1\frac{3}{4} + 1.34)$

$= (1.90 + 1.82) - (1.75 + 1.34)$

$= 3.72 - 3.09$

$= \boxed{0.63}$

Workings

① Convert fractions to decimals

$1\frac{9}{10} = 1.90$

$1\frac{3}{4} = 1.75$

② Add values in parenthesis

$\begin{array}{r} {\scriptstyle 1}\\ 1.90\\ +1.82\\ \hline 3.72 \end{array}$ $\begin{array}{r} {\scriptstyle 1}\\ 1.75\\ 1.34\\ \hline 3.09 \end{array}$

③ Subtract: $\begin{array}{r} {\scriptstyle 6}\\ 3.7\not{2}\\ -3.09\\ \hline 0.63 \end{array}$

3. Tickets for the museum cost $23 each. The numbers of people who visited the museu four different days last week are listed in the table.

Museum Attendance

Day	Number of People
Wednesday	274
Thursday	156
Friday	349
Saturday	408

What was the total income from the tickets sold on Thursday and Friday?

Enter your answer in the space.

$11,615

156 Thursday
+ 349 Friday
505 Tickets

505 tickets
× $23
1515
10100
$11,615 = Income

4. A family of 4 spent $200 at a concert.

- They spent $84 on tickets and $58 on food.
- They spent the rest of the money on souvenirs.

Which equation can be used to find s, the amount of money in dollars the family spent on souvenirs?

$200 = $84 + 58 + S
Tickets Food Souvenirs

F. $200 = s + $84 - $58

G. $200 = $58 + $84 - s

H. $200 = $84 - $58 - s

J. $200 = s + $58 + $84 ✓

sells small, medium, and large bags of mints at his store.

- A medium bag contains three times as many mints as a small bag.
- A large bag contains five times as many mints as a medium bag.
- There are 3,510 mints in a large bag.

How many mints are in a small bag?

A. 234

B. 702

C. 1,170

D. 10,530

(1) Large = 3,510 mints

Medium = 3510 ÷ 5 = 702

small = medium ÷ 3 = 234

(2)
$$5\overline{)3510} = 702$$
35
010
10
0

(3)
$$3\overline{)702} = 234$$
6
10
9
12
12
0

6. Mr. Smith has 371 books in his classroom library. He wants to put these books onto bookshelves. Each bookshelf can hold 24 books. Using compatible numbers, which is the best estimate of how many bookshelves will be completely filled with books?

F. 12

G. 15

H. 20

J. 380

end in 0 or 5

= easy to do mental math with

371 books ÷ 24 books on a shelf.

400 ÷ 25 = 16 shelves

Check: 24 × 15

24 × 20

7. Joseph and Mariah shared part of a whole sandwich. The models are shaded to show fraction of the sandwich each of them ate.

8/10 = 4/5

6/10

1/5

What fraction of the sandwich did Joseph and Mariah eat in all?

A. $\frac{8}{15}$

B. $\frac{7}{15}$

C. $\frac{4}{5}$

D. $\frac{2}{5}$

Solution

$$\frac{6}{10} + \frac{1}{5}$$

$$= \frac{6}{10} + \frac{2}{10} \quad (1)\ (2)$$

$$= \frac{8}{10}$$

$$= \frac{4}{5} \text{ of a sandwich}$$

Working

(1) Lowest common denominator

10	10, 20, 30
5	5, 10, 15

(2) Find equivalent:

$$\frac{1}{5} \times \frac{2}{2} = \frac{2}{10}$$

(3) Simplify:

$$\frac{8 \div 2}{10 \div 2} = \frac{4}{5}$$

ear, Marcus drove his truck a total of 18,249.6 miles. At the end of the year, his k's total mileage was 150,000 miles.

the beginning of the year, what was his truck's total mileage?

F. 131,750.4 mi

G. 141,751.6 mi

H. 168,249.6 mi

J. 332,496.0 mi

Solution:

Beginning mileage = 150,000 miles − 18,249.6

= 131,750.4 miles

Working:

$$\begin{array}{r} {}^{4}1\,{}^{9}9\,{}^{9}9\,{}^{9}10 \\ 150,000.0 \\ -\ 18,249.6 \\ \hline 131,750.4 \text{ miles} \end{array}$$

9. Look at these numbers.

C	P	P	C	C	C	P
12	29	47	54	66	77	83

Which statements about these numbers are true?

Select all correct answers.

~~A.~~ Only 77 is a prime number.

✓ **B.** Only 29, 47, and 83 are prime numbers.

~~C.~~ Only 12 and 54 are composite numbers.

✓ **D.** Only 12, 54, 66, and 77 are composite numbers.

~~E.~~ All of these numbers are composite numbers.

* All even except 2 are composite:

77, 12, 54, 66

* Prime:

$\frac{29}{29 \times 1}$ $\frac{47}{47 \times 1}$

$\frac{83}{83 \times 1}$

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10. What is the value of the expression shown below?

$$12 \times [9 - (4 + 3)]$$

Enter your answer in the space.

24

Solution

$12 \times [9 - (4+3)]$

$= 12 \times [9 - 7]$

$= 12 \times 2$

$= 24$

Working

( ) [ ] P
× ÷ L to R E MD
+ - L to R AS

11. Which comparison statements are true?

Select all the correct answers.

A. 4.497 < 4.387 ✗

4.387
4.497

B. 7.4 > 7.39 ✓

7.390
7.400

C. 8.58 > 8.593 ✗

8.580
8.593

D. 6.073 < 6.21 ✓

6.073
6.210

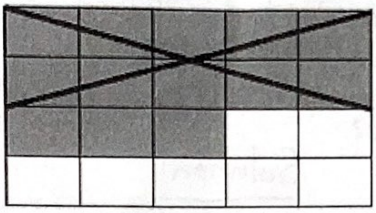
E. 3.7 > 3.71 ✗

3.70
3.71

F. 5.932 < 5.94 ✓

5.932
5.940

shaded part of the model represents a fraction of a pan of brownies. Mary ate a fraction these brownies, as shown below.



Which expression does the model represent?

F. $\frac{13}{20} - \frac{1}{10}$

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

H. $\frac{13}{20} - \frac{7}{10}$

J. $\frac{13}{20} - \frac{10}{20}$

Workings: Fraction 1: $\frac{\text{Shaded}}{\text{Total}} = \frac{13}{20}$

Fraction 2: $\frac{X}{\text{Total}} = \frac{10}{20}$

Solution:

$$\frac{13}{20} - \frac{10}{20}$$

Simplify $\frac{10}{20} = \frac{1}{2}$

$$= \frac{13}{20} - \frac{1}{2}$$

13. Jose Altuve's batting average for the 2017 baseball season was 0.346.

What is this number rounded to the nearest hundredth?

A. 0.30

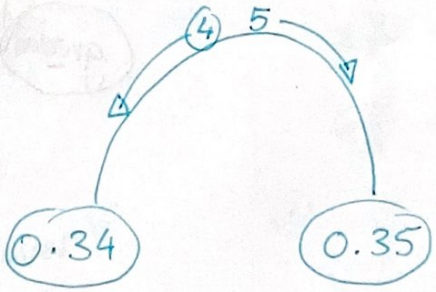
B. 0.34

C. 0.35

D. 0.40

0.346 = 0.35

↑ hundredth place.



14. Mrs. Jackson is purchasing sections of fencing to build a fence around the perimeter of her rectangular raised garden bed.

- The perimeter of her raised garden bed is 78 feet.
- Each section of fence is 3 feet long and costs $6.

Which equation can Mrs. Jackson use to find c, the cost of the sections of fence she needs for her raised garden bed?

F. $78 \div (6 \div 3) = c$

G. $(6 \times 3) \times 78 = c$

H. $78 \div (6 \times 3) = c$

J. $(78 \div 3) \times 6 = c$

Solution:

$C = (78 \div 3) \times \$6$

$= 26 \times \$6$

$= \$156$

① Workings

Garden

Perimeter = 78 ft.

②
$$\begin{array}{r} 3 \\ 26 \\ \times\ \ 6 \\ \hline \$156 \end{array}$$

15. Archie recorded his times running in an annual marathon.

- In 2016, Archie's time was 4.39 hours.
- In 2017, Archie's time was 4.5 hours.
- In 2018, Archie's time was 4.375 hours.
- In 2019, Archie's time was 4.27 hours.

Which answer correctly compares these marathon times?

A. $4.27 < 4.375$ and $4.5 > 4.39$

B. $4.27 < 4.375$ and $4.39 > 4.5$

C. $4.375 > 4.27$ and $4.5 < 4.39$

D. $4.375 > 4.39$ and $4.5 < 4.27$

Least → greatest

4.270

4.375

4.390

4.500

Add zeros to help compare.

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Jin wrote the expression shown.

$$18 \div 6 + 3(25 - 9)$$

What do these parenthesis indicate in the expression?

"Solve me first!" ( )

F. Multiply 3 by 25 before subtracting 9

G. Subtract 9 from 25 before multiplying by 3

$18 \div 6 + 3 \times (25 - 9)$

H. Divide 18 by 6 before adding 3

J. Add 6 and 3 together before subtracting 9 from 25

17. Washington Elementary School ordered 44 pizzas for the pep rally. At the end of the day, the principal found $9\frac{2}{9}$ pepperoni pizzas left over, $8\frac{7}{8}$ sausage pizzas left over, and $6\frac{5}{6}$ cheese pizzas left over.

What is a reasonable estimate for the number of pizzas the students ate at the pep rally?

↳ Round!

A. 19

B. 21

C. 23

D. 25

Solution

$= 44 \text{ pizzas bought} - 9\frac{2}{9} - 8\frac{7}{8} - 6\frac{5}{6}$ (Left over)

$= 44 - 9 - 9 - 7$ ①

OR: $44 - (9 + 9 + 7)$

$= 44 - 25$ left over ②

$= 19$ eaten ③

Workings

① Estimate = Round

$9\frac{2}{9} \rightarrow 9$ (Closest whole number)

$8\frac{7}{8} \rightarrow 9$

$6\frac{5}{6} \rightarrow 7$

② $9 + 9 + 7 = 25$ left over

③ $\overset{3}{\cancel{4}}\overset{1}{4} - 25 = 19$

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18. Jackie opened a new case of batteries.

- The case contained 5 boxes of batteries with 6 batteries in each box.
- Jackie placed 2 batteries in her TV remote.
- Then she took 4 of the batteries out of the case to put in her stereo.

Which expression can be used to show that there are 24 batteries still in the case?

F. $5 \times 6 - 2 + 4 = 32$

G. $5(6) - 2(4) = 22$

H. $5 + 6 - 2 + 4 = 13$

J. $5 \times 6 - (2 + 4) = 24$

Solution:

Batteries in case = (5 boxes x 6 batteries)
$-2 - 4$

$= (5 * 6) - 2 - 4$

$= 30 - 6$

$= 24.$