Topic: Rounding

Question: Round to the nearest hundredth.

0.73862

Answer choices:

A   0.75

B   0.72

C   0.74

D   0.73

Solution: C

The hundredths place in the given number is where the 3 is currently sitting.

0.73862

To round to this place, we'll look at the digit that comes right after the 3, which is the 8. If that digit is greater than or equal to 5, we'll round the 3 up to 4; it it's less than 5, we'll leave the 3 as a 3. Since 8 is greater than 5, we'll round up and get

0.74

Topic: Rounding

Question: Round to five decimal places.

$$5.41\overline{8}$$

Answer choices:

A   5.42

B   5.41888

C   5.41889

D   5.42000

Solution: C

The bar over the 8 in

$$5.41\overline{8}$$

indicates that the 8 repeats forever, which means we can express $5.41\overline{8}$ as

$$5.4188888888...$$

We've been asked to round this number to five decimal places, meaning that we want to round it to a number that has exactly five digits to the right of the decimal point. The 8 in the sixth decimal place (the fourth 8 to the right of the 1) will cause the 8 in the fifth decimal place to be rounded up to a 9. Therefore, this repeating decimal, rounded to five decimal places, is

$$5.41889$$

Topic: Rounding

Question: Round to the hundredths place.

$0.1\overline{36}$

Answer choices:

A   0.140

B   0.1367

C   0.136

D   0.14

Solution: D

The line over the 36 in

$$0.1\overline{36}$$

indicates that the 36 repeats indefinitely. Which means we can extend the 36 out a few decimal places.

$$0.136363636...$$

The hundredths place is

$$0.1\underline{3}6363636...$$

To round to this place, we look at the number to the right of it, which is a 6. Because 6 is greater than 5, that means we round the 3 up to the next number.

$$0.14$$