Estimate Solutions

Lunch Specials

Any Sandwich	**$4.35**
Small Drink	**$1.35**
Medium Drink	**$1.50**
Large Drink	**$2.10**
Salad	**$2.85**
Chips	**$1.64**
Cookie	**$1.10**
Cone (small only)	**$0.85**

Rounding Whole Numbers to the Nearest 10, 100, and 1,000

Nearest 10	Nearest 100	Nearest 1,000
If the digit in the ones place is **less than 5**, **round down**	If the digits in the tens and ones places are **less than 50**, **round down**	If the digits in the hundreds, tens, and ones places are **less than 500**, **round down**
If the digit in the ones place is **5 or greater**, **round up**	If the digits in the tens and ones places are **50 or greater**, **round up**	If the digits in the hundreds, tens, and ones places are **500 or greater**, **round up**
62 rounds ↓ to **60** **87** rounds ↑ to **90**	**142** rounds ↓ to **100** **564** rounds ↑ to **600**	**8,391** rounds ↓ to **8,000** **1,501** rounds ↑ to **2,000**

Rounding Whole Numbers to the Nearest 10, 100, and 1,000

Nearest 10	Nearest 100	Nearest 1,000
If the digit in the ones place is **less than 5**, **round down**	If the digits in the tens and ones places are **less than 50**, **round down**	If the digits in the hundreds, tens, and ones places are **less than 500**, **round down**
If the digit in the ones place is **5 or greater**, **round up**	If the digits in the tens and ones places are **50 or greater**, **round up**	If the digits in the hundreds, tens, and ones places are **500 or greater**, **round up**

Round to the nearest 10, 100, and 1,000.

88 123 6,700

Rounding Whole Numbers to the Nearest 10, 100, and 1,000

Nearest 10	Nearest 100	Nearest 1,000
If the digit in the ones place is **less than 5**, **round down**	If the digits in the tens and ones places are **less than 50**, **round down**	If the digits in the hundreds, tens, and ones places are **less than 500**, **round down**
If the digit in the ones place is **5 or greater**, **round up**	If the digits in the tens and ones places are **50 or greater**, **round up**	If the digits in the hundreds, tens, and ones places are **500 or greater**, **round up**

Round to the nearest 10, 100, and 1,000.

88 90123 100 6,700 7,000

Estimating Solutions

Estimate to the nearest **10**, **100**, and **1,000**.

46 + 82	94 – 67	39 × 63	82 ÷ 12
582 +182	646 – 118	214 × 34	386 ÷ 122
5,116 + 858	6,499 – 964	1,246 × 114	8,401 ÷ 42

Use estimation to solve.

A beach store has 788 umbrellas and has already rented 243. The owner wants to display the remaining umbrellas equally in three sections of the store. About how many umbrellas will be in each section?

Estimating Solutions

Estimate to the nearest **10**, **100**, and **1,000**.

46 + 82	94 – 67	39 × 63	82 ÷ 12
130	20	2,400	8
582 +182	646 – 118	214 × 34	386 ÷ 122
800	500	6,000	4
5,116 + 858	6,499 – 964	1,246 × 114	8,401 ÷ 42
5,900	5,000	100,000	200

Use estimation to solve.

A beach store has 788 umbrellas and has already rented 243. The owner wants to display the remaining umbrellas equally in three sections of the store. About how many umbrellas will be in each section?

200

Rounding Decimals

Nearest Hundredth: If the digit in the thousandths place is

less than 5	**5 or greater**
drop the thousandths place	**round up** to the nearest hundredth
8.534 rounds to **8.53**	**4.679** rounds to **4.68**

Nearest Tenth: If the digit in the hundredths place is

less than 5	**5 or greater**
drop the hundredths or the hundredths and thousandths places	**round up** to the nearest tenth

8.534 rounds to **8.5** **4.678** rounds to **4.7** **1.76** rounds to **1.8**

Round to the nearest hundredth.

16.348 1.052 138.268

Round to the nearest tenth.

8.249 17.789 1.48

Rounding Decimals

Nearest Hundredth: If the digit in the thousandths place is

less than 5
drop the thousandths place

8.534 rounds to **8.53**

5 or greater
round up to the nearest hundredth

4.679 rounds to **4.68**

Nearest Tenth: If the digit in the hundredths place is

less than 5
drop the hundredths or the hundredths and thousandths places

8.534 rounds to **8.5**

5 or greater
round up to the nearest tenth

4.678 rounds to **4.7**

1.76 rounds to **1.8**

Round to the nearest hundredth.

16.348 16.35 1.052 1.05 138.268 138.27

Round to the nearest tenth.

8.249 8.2 17.789 17.8 1.48 1.5

Estimating Solutions

Estimate to the nearest **hundredth** to solve.

$14.472 + 0.401$ $50.258 - 40$ 2.148×12 $435.398 \div 4$

Estimate to the nearest **tenth** to solve.

$7.62 + 9.45$ $8.42 - 7.44$ 23.366×9 $12.34 \div 1.54$

Use estimation to solve.

A stack of math books weighs 33.675 pounds. A stack of literature books weighs 42.88 pounds. Estimate the weight of two stacks of math books and one stack of literature books to the nearest tenth.

Estimating Solutions

Estimate to the nearest **hundredth** to solve.

$14.472 + 0.401$	$50.258 - 40$	2.148×12	$435.398 \div 4$
14.87	10.26	25.8	108.85

Estimate to the nearest **tenth** to solve.

$7.62 + 9.45$	$8.42 - 7.44$	23.366×9	$12.34 \div 1.54$
17.1	1.0	210.6	8.2

Use estimation to solve.

A stack of math books weighs 33.675 pounds. A stack of literature books weighs 42.88 pounds. Estimate the weight of two stacks of math books and one stack of literature books to the nearest tenth.

110.3 pounds

Estimating Money and Percentages

If estimating money amounts when adding, subtracting, multiplying, or dividing, round to the nearest dollar.

less than $0.50
drop the cents

$28.48 rounds to **$28**

$0.50 or greater
round up to the nearest dollar

$14.86 rounds to **$15**

If estimating percentages of 10, move the decimal point of the number one place to the left.

Round the numbers to the nearest hundredth of the money amounts.

10% of $8.57 → **$0.857** → **$0.86**

40% of $9.13 → **$0.913** → **$0.91** → **$0.91 × 4 = $3.64**

Estimating Solutions

Estimate money amounts to solve.

Lee Ann is buying some supplies for a party. In her cart, she has 4 packages of paper plates, 4 packages of paper cups, and 4 packages of plastic utensils that cost $6.95 per package. She has a set of decorations for $12.85. She gives the clerk $100 to pay for the supplies. Estimate the change she will receive.

Mark and three of his friends paid $59.75 for fishing licenses, $23.62 for bait, and $12.45 per hour to rent a boat. They rented the boat for 4 hours. If the friends split the total cost, estimate each person's share.

Estimate percentages of money amounts to solve.

Kayla bought a watch for 30% off the regular price. The regular price is $82.95. About how much did Kayla pay for the watch?

Estimating Solutions

Estimate money amounts to solve.

Lee Ann is buying some supplies for a party. In her cart, she has 4 packages of paper plates, 4 packages of paper cups, and 4 packages of plastic utensils that cost $6.95 per package. She has a set of decorations for $12.85. She gives the clerk $100 to pay for the supplies. Estimate the change she will receive.

$3

Mark and three of his friends paid $59.75 for fishing licenses, $23.62 for bait, and $12.45 per hour to rent a boat. They rented the boat for 4 hours. If the friends split the total cost, estimate each person's share.

$33

Estimate percentages of money amounts to solve.

Kayla bought a watch for 30% off the regular price. The regular price is $82.95. About how much did Kayla pay for the watch?

$58