

Rounding

Numbers can be rounded to the nearest ten, the nearest hundred, the nearest thousand and even the nearest whole number. When a number is rounded it is less exact but its value will still be very close to the original number that you start with.

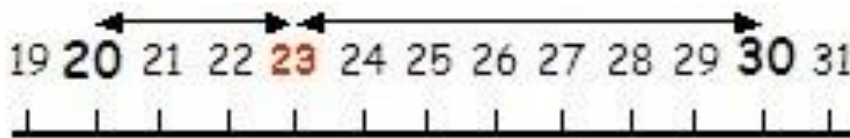
Rounding numbers to the nearest **10**

- When **rounding to the nearest 10** the digit in the UNITS place always becomes **Zero**.
- The digit in the TENS place may increase by 1 depending on whether the number is **Rounded Down** or **Rounded Up**.
- The resulting answer is always a multiple of **10**.

Rounding DOWN: If the number you are rounding has **0, 1, 2, 3, or 4** in its **units** place, round the number down. **The digit in the TENS place does not change.**

Example: 2**3** is **Rounded Down** since the unit digit (**3**) is less than 5

2**3** rounded to the nearest ten is 2**0**.

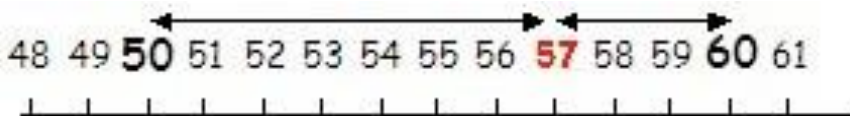


23 is closer in value to **20** than to 30

Rounding UP: If the number you are rounding has **5, 6, 7, 8, or 9** in its **units** place, round the number up. **The digit in the TENS place is increased by 1.**

Example: 5**7** is **Rounded Up** since the unit digit (**7**) is greater than 5

5**7** rounded to the nearest ten is 6**0**.



57 is closer in value to **60** than to 50

Rounding

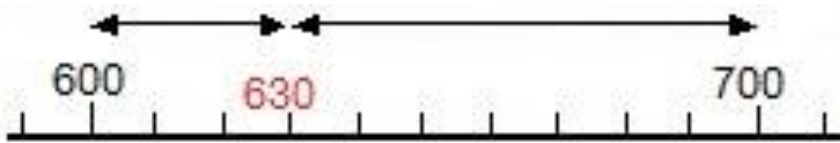
Rounding numbers to the nearest **100**

- When **rounding to the nearest 100** both the numbers in the **digit** and the **tens** place become **Zero**.
- The digit in the **HUNDREDS** place may increase by 1 depending on whether the number is **Rounded Down** or **Rounded Up**.
- The rounded answer is always a multiple of **100**.

Rounding DOWN: If the number you are rounding has **0, 1, 2, 3, or 4** in its **tens** place, round the number down. **The digit in the HUNDREDS place does not change.**

Example: 6**30** is **Rounded Down** since the number (**3**) in the **tens** place is less than 5

6**30** rounded to the nearest hundred is 6**00**.

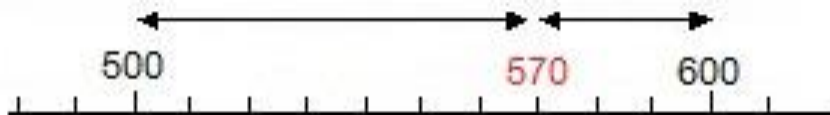


630 is closer in value to **600** than to **700**

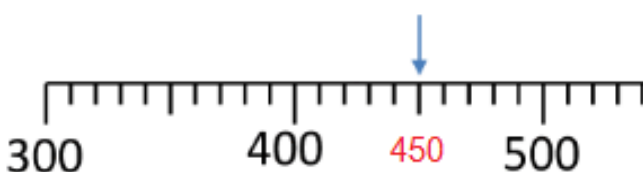
Rounding UP: If the number you are rounding has **5, 6, 7, 8, or 9** in its **tens** place, round the number up. **The digit in the HUNDREDS place is increased by 1.**

Example: 5**70** is **Rounded Up** since the number (**7**) in the **tens** place is greater than 5

5**70** rounded to the nearest hundred is 6**00**.



570 is closer in value to **600** than to **500**



450 is **Rounded Up** to **500** since the number (**5**) in the tens place is 5

Rounding

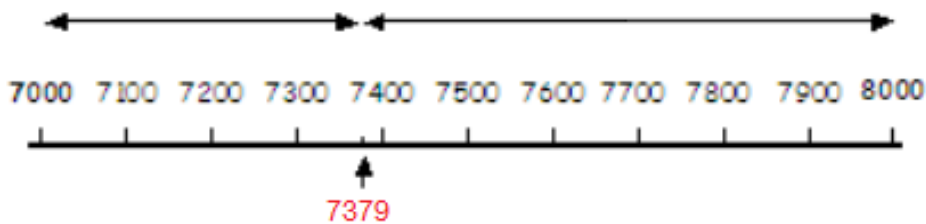
Rounding numbers to the nearest **1000**

- When **rounding to the nearest 1000** the numbers in the **digit**, the **tens** and the **hundreds** place become **Zero**.
- The digit in the **THOUSANDS** place may increase by 1 depending on whether the number is **Rounded Down** or **Rounded Up**.
- The rounded answer is always a multiple of **1000**.

Rounding DOWN: If the number you are rounding has **0, 1, 2, 3, or 4** in its **hundreds** place, round the number down. **The digit in the THOUSANDS place does not change.**

Example: 7**379** is **Rounded Down** since the number (**3**) in the **tens** place is less than 5

7**379** rounded to the nearest thousand is 7**000**.

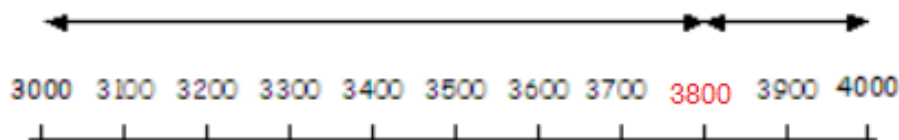


7379 is closer in value to **7000** than to **8000**

Rounding UP: If the number you are rounding has **5, 6, 7, 8, or 9** in its **hundreds** place, round the number up. **The digit in the THOUSANDS place is increased by 1.**

Example: 3**800** is **Rounded Up** since the number (**8**) in the **tens** place is greater than 5

3**800** rounded to the nearest thousand is 4**000**.



3800 is closer in value to **4000** than to **3000**

Rounding

Rounding Decimals to the nearest **whole number**

- Rounding Decimals to the nearest whole number works exactly the same way as rounding whole numbers.
- When **rounding to the nearest whole number** the numbers in the decimal place are replaced with **Zero**.
- The digit in the ONES place may increase by 1 depending on whether the number is **Rounded Down** or **Rounded Up**.
- The rounded answer is always a **whole number**.

Rounding DOWN: If the decimal number you are rounding has **0, 1, 2, 3, or 4** in its **tenths** place, round the number down. **The digit in the ones place does not change.**

Examples:

- a) 1.**3** is **Rounded Down** to 1 since the number (**3**) in the **tenths** place is less than 5
- b) 3.**26** is **Rounded Down** to 3 since the number (**2**) in the **tenths** place is less than 5
- c) 27.**123** is **Rounded Down** to 27 since the number (**1**) in the **tenths** place is less than 5

Rounding UP: If the decimal number you are rounding has **5, 6, 7, 8, or 9** in its **tenths** place, round the number up. **The digit in the ones place increases by 1.**

Examples:

- a) 8.**8** is **Rounded Up** to 9 since the number (**8**) in the **tenths** place is greater than 5
- b) 14.**66** is **Rounded Up** to 15 since the number (**6**) in the **tenths** place is greater than 5
- c) 40.**591** is **Rounded Up** to 41 since the number in the **tenths** place is 5

Rounding Worksheet

Round the following numbers to the nearest 10:

- a) 13 = _____ b) 47 = _____ c) 71 = _____ d) 545 = _____

Round the following numbers to the nearest 100:

- a) 722 = _____ b) 185 = _____ c) 230 = _____ d) 55 = _____

Round the following numbers to the nearest 1000:

- a) 2763 = _____ b) 8855 = _____ d) 9744 = _____

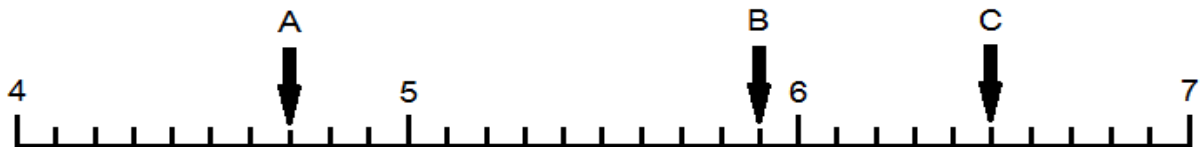
Round the following decimal numbers to the nearest whole number:

- a) 3.2 = _____ b) 5.5 = _____ c) 2.36 = _____ d) 54.9 = _____

Round the following numbers to the nearest 10, 100 and 1000			
	to the nearest 10	to the nearest 100	to the nearest 1000
5732			
6649			
1298			

Round the following prices to the nearest Euro:	
Actual Price	Price rounded to the nearest Euro
€6.77	€ _____
€13.29	€ _____
€1.54	€ _____

Use the number line to round the values of B and C to the nearest whole number



A	<u>4.7</u> = <u>5</u> to the nearest whole number
B	_____ = _____ to the nearest whole number
C	_____ = _____ to the nearest whole number

Rounding Answer Sheet

Round the following numbers to the nearest 10:

- a) $13 = \underline{10}$ b) $47 = \underline{50}$ c) $71 = \underline{70}$ d) $545 = \underline{550}$

Round the following numbers to the nearest 100:

- a) $722 = \underline{700}$ b) $185 = \underline{200}$ c) $230 = \underline{200}$ d) $55 = \underline{100}$

Round the following numbers to the nearest 1000:

- a) $2763 = \underline{3000}$ b) $8855 = \underline{9000}$ d) $9744 = \underline{10000}$

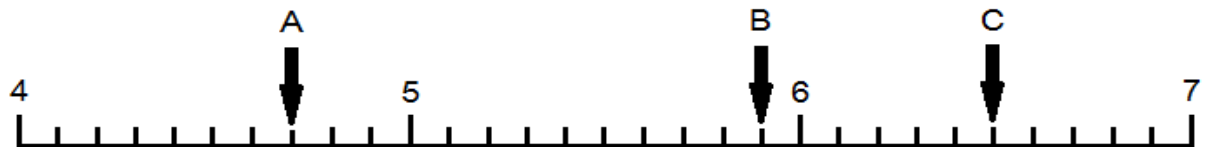
Round the following decimal numbers to the nearest whole number:

- a) $3.2 = \underline{3}$ b) $5.5 = \underline{6}$ c) $2.36 = \underline{2}$ d) $54.9 = \underline{55}$

Round the following numbers to the nearest 10, 100 and 1000			
	to the nearest 10	to the nearest 100	to the nearest 1000
5732	<u>5730</u>	<u>5700</u>	<u>6000</u>
6649	<u>6650</u>	<u>6600</u>	<u>7000</u>
1298	<u>1300</u>	<u>1300</u>	<u>1000</u>

Round the following prices to the nearest Euro:	
Actual Price	Price rounded to the nearest Euro
€6.77	<u>€7.00</u>
€13.29	<u>€13.00</u>
€1.54	<u>€2.00</u>

Use the number line to round the values of B and C to the nearest whole number



A	<u>4.7 = 5</u> to the nearest whole number
B	<u>5.9 = 6</u> to the nearest whole number
C	<u>6.5 = 7</u> to the nearest whole number