

## Order of Magnitude

**State how many order of magnitude difference for each value below.**

**Example:  $1.5 \times 10^5$  and  $2.5 \times 10^2$  has a magnitude difference of 3**

1.  $1.5 \times 10^{14}$  and  $3.3 \times 10^{22}$       Difference=\_\_\_\_\_
2.  $4.6 \times 10^{19}$  and  $5.4 \times 10^{25}$       Difference=\_\_\_\_\_
3.  $8.1 \times 10^3$  and  $6.3 \times 10^9$       Difference=\_\_\_\_\_
4.  $9.7 \times 10^5$  and  $2.8 \times 10^{24}$       Difference=\_\_\_\_\_
5.  $4.3 \times 10^8$  and  $4.5 \times 10^{19}$       Difference=\_\_\_\_\_
6.  $5.6 \times 10^2$  and  $3.5 \times 10^2$       Difference=\_\_\_\_\_
7.  $1.1 \times 10^{-8}$  and  $7.8 \times 10^2$       Difference=\_\_\_\_\_
8.  $9.9 \times 10^{-17}$  and  $9.0 \times 10^{12}$       Difference=\_\_\_\_\_
9.  $3.7 \times 10^{-9}$  and  $3.7 \times 10^{-1}$       Difference=\_\_\_\_\_
10.  $7.7 \times 10^{-13}$  and  $1.9 \times 10^6$       Difference=\_\_\_\_\_
11.  $2.1 \times 10^{-8}$  and  $2.2 \times 10^7$       Difference=\_\_\_\_\_
12.  $4.2 \times 10^0$  and  $8.4 \times 10^8$       Difference=\_\_\_\_\_
13.  $8.7 \times 10^{-7}$  and  $8.0 \times 10^0$       Difference=\_\_\_\_\_
14.  $6.5 \times 10^{-2}$  and  $7.5 \times 10^2$       Difference=\_\_\_\_\_
15.  $8.0 \times 10^{-6}$  and  $4.0 \times 10^8$       Difference=\_\_\_\_\_

**Round the following numbers to the place stated:**

16. Round to the nearest 10: 35
17. Round to the nearest 10: 43
18. Round to the nearest 100: 10067
19. Round to the nearest  $10^{\text{th}}$ : 33.2
20. Round to the nearest  $1000^{\text{th}}$ : 345.6789
21. Round to the nearest  $100^{\text{th}}$ : 45.996
22. Round to the nearest  $100^{\text{th}}$ : 46.001
23. Round to the nearest  $100^{\text{th}}$ : 489.999951

**Round the following numbers to 4 significant figure:**

- 24. 45674
- 25. 54321
- 26. 1.3822
- 27. 0.0045665
- 28. 0.0537652
- 29. 9.89952

**Round the following numbers to the correct number of digets.**

<u>Number</u>	<u>5 digits</u>	<u>4 digits</u>	<u>3 digits</u>	<u>2 digits</u>
30. 5.13159	_____	_____	_____	_____
31. 8.59350	_____	_____	_____	_____
32. 7.15893	_____	_____	_____	_____
33. 9.98998	_____	_____	_____	_____