P A2 (pg 1 of 2) **Significant Figures** Name_____

Underline the significant figures are in each measurement.

1. 143 g
2. 0.00740 cm
3. 8.750×10^8 mg
4. 12.17ºC
5. 10800 m
6. 5.0 dm

Round off each of these measurements to 3 significant figures.

7. 98.473 L
8. 0.0007632 cg
9. 57.084 m
10. 12.17ºC
11. 7.4983×10^4 mm
12. 1764.9 mL
13. 69998 kg
14. 0.0499802 L
15. 1779 g

Assume that all of the numbers are measured quantities, and that the measuring device was used correctly.
Round the answer to the correct number of sig figs based on the numbers in the problem.

16. 0.256×150
17. 0.0043×0.8000
18. $\frac{240}{0.30}$
19. 10500×30.62
20. $4.2 + 0.17763$
21. $78.525 + 36.4$
22. $78.575 + 36.4$
23. 0.3060×50
24. $\frac{0.0000570}{0.00061}$
25. $\frac{82.0}{41}$
26. $\frac{3.65}{15.36}$
27. $12.5 \times 0.0023 \times 0.1000$
28. $\frac{0.030}{88.345}$
29. $\frac{100}{3.0}$
30. $2.4 - 12.93$
31. 2.000×55.0
32. $0.12 + 23.687$
33. $100 + 1.5$
34. $\frac{15}{150}$
35. $\frac{7500}{0.8}$
36. $\frac{500}{20}$
37. $\frac{99}{0.0200}$
38. $1780 + 27 + 0.89$
39. $\frac{0.400}{0.25}$
40. $102 - 8.07$
41. 55×3.780
42. $\frac{0.427}{0.030}$
43. 3400×1.850
44. $155.37 - 155.10$
45. 0.0045×0.008

Underlining sig figs

1. 143 g
2. 0.00740 cm
3. 8.750 $\times 10^8$ mg
4. 12.17ºC
5. 10800 m
6. 5.0 dm

Rounding off to 3 sig figs

7. 98.5 L
8. 0.000763 cg
9. 57.1 m
10. 12.2ºC
11. 7.50×10^4 mm
12. 1760 ml
13. 7.00×10^4 kg
14. 0.0500 L
15. 1780 g

Calculate and round off appropriately

16. 38 (2sf)
17. 0.0034 (2sf)
18. 800 » 8.0×10^2 (2sf)
19. 322000 (3sf)
20. 4.4 (10^{ths} place)
21. 114.9 (10^{ths} place)
22. 115.0 (10^{ths} place)
23. 20 (1sf)
24. 0.093 (2sf)
25. 2.0 (2 sf)
26. 0.238 (3 sf)
27. 0.0029 (2 sf)
28. 0.00034 (2 sf)
29. 30 (1sf)
30. −10.5 (10^{ths} place)
31. 1.10×10^2 (3sf)
32. 23.81 (100^{ths} place)
33. 100 (100's place)
34. 0.10 (2sf)
35. 9000 (1 sf)
36. 20 or 30 (round up or down) (1 sf)
37. 5000 » 5.0×10^3 (2 sf)
38. 1810 (10's place)
39. 1.6 (2 sf)
40. 94 (1's place)
41. 210 (2sf)
42. 14 (2sf)
43. 6300 (2sf)
44. 0.27 (100^{ths} place)
45. 0.00004 (1sf)