

1. Which of the following does not have three significant figures?
- A. 0.106 B. 1 250 000 C. 14.0 D. 0.470 E. 0.016
2. The number of significant digits in the number 0.0036050 is
- A. 3 B. 4 C. 5 D. 7 E. 8
3. The number of significant digits in the number 4.50030×10^{-3} is
- A. 1 B. 3 C. 5 D. 6 E. 7
4. How many significant digits are contained in the number 0.005670?
- A. three B. four C. six D. seven
5. The number 0.002 has how many significant digits?
- A. 1 B. 2 C. 3 D. 4
6. The number 0.08 has how many significant digits?
- A. 1 B. 2 C. 3 D. 4
7. The number 20 has how many significant digits?
- A. 1 B. 2 C. 3 D. 4
8. The number 0.060 has how many significant digits?
- A. 1 B. 2 C. 3 D. 4
9. The number 3.0 has how many significant digits?
- A. 1 B. 2 C. 3 D. 4
10. The number 50. has how many significant digits?
- A. 1 B. 2 C. 3 D. 4

11. The number 200.040 has how many significant digits?
- A. 2 B. 4 C. 5 D. 6
12. How close a measurement comes to an accepted value is called its
- A. accuracy. B. precision. C. uncertainty. D. certainty. E. absolute value.
13. The last digit recorded in a measurement
- A. should not have any uncertainty.
 B. is the last absolutely certain digit.
 C. has some uncertainty but gives some useful information.
 D. has some uncertainty and gives no useful information.
 E. is always put in just to show the decimal place.
14. Which statement best describes the data below if the real value is 13.85 m?
- i) 14.18 m ii) 14.20 m iii) 14.20 m iv) 14.19 m
- A. accurate and precise B. neither accurate nor precise
 C. accurate but not precise D. precise but not accurate
15. Which statement best describes the data below if the real value is 14.19 m?
- i) 14.18 m ii) 14.20 m iii) 14.20 m iv) 14.19 m
- A. accurate and precise B. neither accurate nor precise
 C. accurate but not precise D. precise but not accurate
16. Which statement best describes the data below if the real value is 4.54 g?
- i) 4.42 g ii) 4.77 g iii) 4.64 g iv) 4.68 g
- A. accurate and precise B. neither accurate nor precise
 C. accurate but not precise D. precise but not accurate
17. When the numbers 550 and 38.44 are added the result is
- A. 590 B. 580 C. 588 D. 588.44
18. When 0.00651, 0.026 and 0.8342 are added the result is
- A. 0.86671 B. 0.8667 C. 0.866 D. 0.867
19. When the numbers 550. and 38.74 are added the result is
- A. 590 B. 589 C. 588 D. 588.44

20. When the numbers 552.0 and 38.14 are added the result is
- A. 590 B. 590.1 C. 591 D. 590.
21. When 0.65100, 0.260 and 0.8342 are added the result is
- A. 1.74 B. 1.75 C. 1.745 D. 1.7452
22. When 5.1×10^{-3} is subtracted from 0.005110 the difference is
- A. 6×10^{-5} B. 6.0×10^{-5} C. 0.00001 D. 0
23. When 1.06 is subtracted from 11.0 the difference is
- A. 9.9 B. 9.90 C. 9.94 D. 10.0 E. 10.
24. $49.009 + 0.0007 =$
- A. 49.0097 B. 49.010 C. 49.009 D. 49.01 E. 49.0090
25. How many significant digits will be in the answer of the calculation $87.5 \text{ cm} \times 763.98 \text{ cm}$?
- A. two B. three C. four D. five
26. The number of significant digits in the answer to the question, $45.000 \div 7.605$ is
- A. 2 B. 3 C. 4 D. 5 E. 6
27. $240 \div 863 =$
- A. 0.27 B. 0.28 C. 0.278 D. 0.279
28. $24.000 \div 60 =$
- A. 0.4000 B. 0.400 C. 0.40 D. 0.4
29. $24.000 \div 8.600 =$
- A. 2.7907 B. 2.80 C. 2.79 D. 2.791
30. $0.5000 \div 0.253 =$
- A. 2 B. 2.0 C. 1.97 D. 1.98

31. When the number 56090 is rounded to 2 significant digits the result is

- A. 5.60×10^4 B. 5600. C. 56000. D. 5.6×10^4

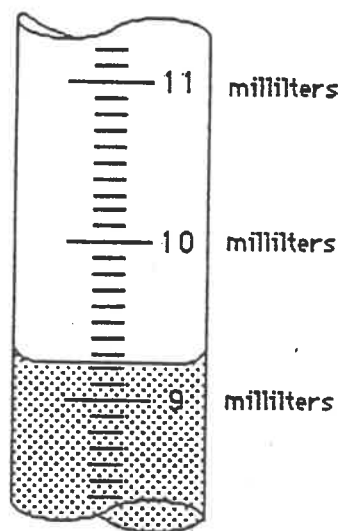
32. When the number 51480 is rounded to 3 significant digits the result is

- A. 514 B. 515 C. 5.15×10^2 D. 5.15×10^4

33. The number 18.499 correctly rounded to 2 significant digits is

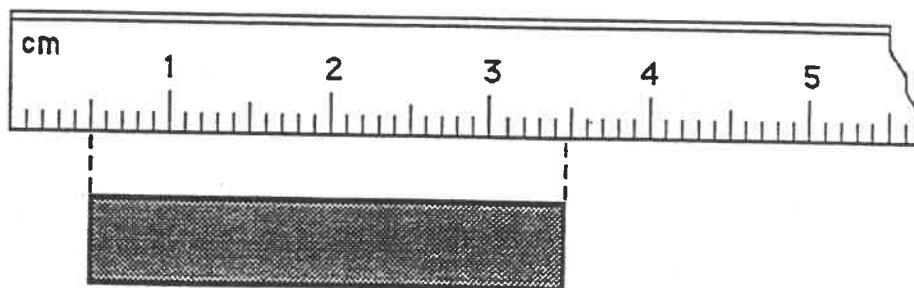
- A. 18. B. 18.49. C. 18.50. D. 19.

34. What volume should be recorded for the liquid in the graduated cylinder shown in the figure?



- A. 9.3 mL B. 9.2 mL C. 9.24 mL D. 9.240 mL

35. What is the length of the box?



- A. 3.45 cm B. 2.9 cm C. 3.0 cm D. 2.95 cm

36. The piece of equipment that would give the least accurate measurement for the volume of a particular liquid would be a
- A. volumetric flask. B. graduated cylinder. C. beaker. D. pipet.
37. After drawing a line for a graph, the line is lengthened so that a larger value can be determined. This process is called
- A. extrication B. extrapolation C. interpretation D. interpolation
38. After drawing a line for a graph, the value of any dependent variable can be determined for its corresponding independent variable, even though the values were between the points from the original data table. This process is called
- A. extrication B. extrapolation C. interpretation D. interpolation
39. A student measured a selection of pizza pans and recorded the following data.
- | | | | | | |
|--------------------|------|------|------|------|------|
| diameter (cm) | 14.7 | 19.6 | 24.5 | 29.4 | 36.7 |
| circumference (cm) | 47.3 | 61.6 | 75.8 | 91.3 | 117 |
- a) On a separate piece of graph paper, plot the data using diameter as the independent variable. (5 marks)
- b) Calculate the slope of the resulting graph. (3 marks)
- c) What is the equation for the line? (1 mark)
- d) What does the slope represent for this specific graph?
40. Convert 0.0068 kg to g.
- A. 0.068 g B. 0.68 g C. 6.8 g D. 68 g
41. Convert 0.5 mg to g.
- A. 500 g B. 5 g C. 0.5 g D. 0.000 5 g
42. 0.00025 grams are equal to
- A. 0.25 kg B. 25 kg C. 2.5×10^{-7} kg D. 2.5×10^7 kg E. 2.5×10^{-5} kg
43. 0.030 mm is equal to
- A. 0.30 μm B. 300 m C. 30. μm D. 300.0 nm E. 3.0 μm
44. 490 μm is equal to
- A. 0.0049 m B. 4.9×10^{-4} m C. 4.9×10^{-7} m D. 4.9×10^{-11} m E. 4.9×10^4 m

45. 10. millimeters is equal to
- A. 0.010 meters. B. 0.0010 meters. C. 0.00010 meters. D. 10 meters.
46. 20. kilograms is equal to
- A. 2.0×10^1 mg. B. 2.0×10^3 mg. C. 2.0×10^5 mg. D. 2.0×10^7 mg.
47. Express the length 3.22 mm in centimetres.
- A. 0.322 cm B. 3.22 cm C. 322 cm D. 32.2 cm
48. The metric prefix for 1/1000 is
- A. kilo B. centi C. milli D. micro
49. The metric prefix for 1000 is
- A. kilo B. centi C. milli D. Mega
50. The metric prefix for 1/100 is
- A. hecto B. centi C. milli D. micro
51. The standard metric unit of measure for mass is the
- A. kilogram B. litre C. metre D. gram
52. The standard metric unit of measure for energy is
- A. °Celsius. B. Kelvin. C. watt. D. joule.
53. The standard metric unit of measure for time is the
- A. hour B. minute C. second D. year

Practice Measurement TEST ANSWERS

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Answer Key

Page: 1

Test Name: Measurement

Test Date: Thu, Feb 25, 1999

Print Date: Thu, Feb 23, 2019					Answer(s)									
Question ID	Type	Pts	0	1	2	3	4	5	6	7	8	9		
1: 1 #_OF_SIG_DIGS_K 001 MC-SR 1	E	A	B	C	D	E	A	B	C	D				
1: 2 #_OF_SIG_DIGS_K 002 MC-SR 1	C	D	E	A	B	C	D	E	A	B				
1: 3 #_OF_SIG_DIGS_K 003 MC-SR 1	D	E	A	B	C	D	E	A	B	C				
1: 4 #_OF_SIG_DIGS_K 005 MC-SR 1	B	C	D	A	B	C	D	A	B	C				
1: 5 #_OF_SIG_DIGS_K 006 MC-SR 1	A	A	A	A	A	A	A	A	A	A				
1: 6 #_OF_SIG_DIGS_K 007 MC-SR 1	A	A	A	A	A	A	A	A	A	A				
1: 7 #_OF_SIG_DIGS_K 008 MC-SR 1	A	A	A	A	A	A	A	A	A	A				
1: 8 #_OF_SIG_DIGS_K 010 MC-SR 1	B	B	B	B	B	B	B	B	B	B				
1: 9 #_OF_SIG_DIGS_K 012 MC-SR 1	B	B	B	B	B	B	B	B	B	B				
1: 10 #_OF_SIG_DIGS_K 013 MC-SR 1	B	B	B	B	B	B	B	B	B	B				
1: 11 #_OF_SIG_DIGS_K 022 MC-SR 1	D	D	D	D	D	D	D	D	D	D				
1: 12 ACCURACY_&_PREC_K 001 MC-SR 1	A	B	C	D	E	A	B	C	D	E				
1: 13 ACCURACY_&_PREC_K 002 MC-SR 1	C	D	E	A	B	C	D	E	A	B				
1: 14 ACCURACY_&_PREC_S 001 MC-SR 1	D	A	B	C	D	A	B	C	D	A				
1: 15 ACCURACY_&_PREC_S 002 MC-SR 1	A	B	C	D	A	B	C	D	A	B				
1: 16 ACCURACY_&_PREC_S 005 MC-SR 1	B	B	C	D	A	B	C	D	A	B				
1: 17 ADD_&_SUBTRACT_S 001 MC-SR 1	B	B	C	D	A	B	C	D	A	B				
1: 18 ADD_&_SUBTRACT_S 003 MC-SR 1	D	B	C	D	A	B	C	D	A	B				
1: 19 ADD_&_SUBTRACT_S 003 MC-SR 1	B	B	C	D	A	B	C	D	A	B				
1: 20 ADD_&_SUBTRACT_S 003 MC-SR 1	B	B	C	D	A	B	C	D	A	B				
1: 21 ADD_&_SUBTRACT_S 014 MC-SR 1	C	B	C	D	A	B	C	D	A	B				
1: 22 ADD_&_SUBTRACT_S 023 MC-SR 1	D	D	A	B	C	D	A	B	C	D				
1: 23 ADD_&_SUBTRACT_S 025 MC-SR 1	A	D	A	B	C	D	A	B	C	D				
1: 24 ADD_&_SUBTRACT_S 033 MC-SR 1	B	C	D	E	A	B	C	D	E	A				
1: 25 MULT_&_DIVIDE_K 001 MC-SR 1	B	C	D	A	B	C	D	A	B	C				
1: 26 MULT_&_DIVIDE_K 002 MC-SR 1	C	D	E	A	B	C	D	E	A	B				
1: 27 MULT_&_DIVIDE_S 001 MC-SR 1	B	B	C	D	A	B	C	D	A	B				
1: 28 MULT_&_DIVIDE_S 003 MC-SR 1	D	D	D	D	D	D	D	D	D	D				
1: 29 MULT_&_DIVIDE_S 006 MC-SR 1	D	B	C	D	A	B	C	D	A	B				
1: 30 MULT_&_DIVIDE_S 013 MC-SR 1	D	D	A	B	C	D	A	B	C	D				
1: 31 ROUNDING_OFF_K 001 MC-SR 1	D	D	D	D	D	D	D	D	D	D				
1: 32 ROUNDING_OFF_K 004 MC-SR 1	D	B	C	D	A	B	C	D	A	B				
1: 33 ROUNDING_OFF_K 026 MC-SR 1	A	B	C	D	A	B	C	D	A	B				
1: 34 EQUIPMENT_MEASURE_K 003 MC-SR 1	C	D	A	B	C	D	A	B	C	D				
1: 35 EQUIPMENT_MEASURE_K 004 MC-SR 1	D	A	B	C	D	A	B	C	D	A				
1: 36 EQUIPMENT_MEASURE_K 006 MC-SR 2	C	D	A	B	C	D	A	B	C	D				
1: 37 GRAPHING_K 001 MC-SR 1	B	C	D	A	B	C	D	A	B	C				
1: 38 GRAPHING_K 002 MC-SR 1	D	C	D	A	B	C	D	A	B	C				
1: 39 GRAPHING_S 001 FF-OE 10	(Open-ended)													
1: 40 METRIC_CONVERSION_S 001 MC-SR 1	C	D	A	B	C	D	A	B	C	D				
1: 41 METRIC_CONVERSION_S 005 MC-SR 1	D	A	B	C	D	A	B	C	D	A				
1: 42 METRIC_CONVERSION_S 020 MC-SR 1	C	C	C	C	C	C	C	C	C	C				
1: 43 METRIC_CONVERSION_S 022 MC-SR 1	C	C	C	C	C	C	C	C	C	C				
1: 44 METRIC_CONVERSION_S 024 MC-SR 1	B	C	D	E	A	B	C	D	E	A				
1: 45 METRIC_CONVERSION_S 025 MC-SR 1	A	B	C	D	A	B	C	D	A	B				
1: 46 METRIC_CONVERSION_S 026 MC-SR 1	D	A	B	C	D	A	B	C	D	A				
1: 47 METRIC_CONVERSION_S 027 MC-SR 1	A	B	C	D	A	B	C	D	A	B				
1: 48 METRIC_PREFIXES_K 001 MC-SR 1	C	D	A	B	C	D	A	B	C	D				
1: 49 METRIC_PREFIXES_K 002 MC-SR 1	A	B	C	D	A	B	C	D	A	B				
1: 50 METRIC_PREFIXES_K 003 MC-SR 1	B	C	D	A	B	C	D	A	B	C				

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Answer Key

Page: 2

Test Name: Measurment

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Question ID			Type	Pts	Answer(s)									
					0	1	2	3	4	5	6	7	8	9
1:	51	METRIC_UNITS_K	002	MC-SR	1	D	A	B	C	D	A	B	C	D
1:	52	METRIC_UNITS_K	005	MC-SR	1	D	A	B	C	D	A	B	C	D
1:	53	METRIC_UNITS_K	006	MC-SR	1	C	D	A	B	C	D	A	B	C