2) How many significant figures are in 1009.630 mL? A) 3 B) 6 C) 4 D) 7 E) 5 3) How many significant figures are in 3.408 x 10 ⁴ m? A) 5 B) 7 C) 8 D) 3 E) 4 4) How many significant figures are in the measurement, 0.0005890 g? A) 8 B) 4 C) 6 D) 7 E) 5 5) What answer should be reported, with the correct number of significant figures, for the following calculation? (433.621 - 333.9) x 11.900 A) 1.187 x 103 B) 1.19 x 103 C) 1.1868 x 103 D) 1.18680 x 103 E) 1.186799 x 103	1) If a solution has a temper A) 628°C	rature of 355 K, what is it: B) 165°C	s temperature in degrees C) 82°C	s celsius? D) 179°C	E) 279°C			
3) How many significant figures are in 3.408 x 10 ⁴ m? A) 5 B) 7 C) 8 D) 3 E) 4 4) How many significant figures are in the measurement, 0.0005890 g? A) 8 B) 4 C) 6 D) 7 E) 5 5) What answer should be reported, with the correct number of significant figures, for the following calculation? (433.621 - 333.9) × 11.900 A) 1.187 × 103 B) 1.19 × 103 C) 1.1868 × 103 D) 1.18680 × 103	2) How many significant figures are in 1009.630 mL?							
A) 5 B) 7 C) 8 D) 3 E) 4 4) How many significant figures are in the measurement, 0.0005890 g? A) 8 B) 4 C) 6 D) 7 E) 5 5) What answer should be reported, with the correct number of significant figures, for the following calculation? (433.621 - 333.9) × 11.900 A) 1.187×10^3 B) 1.19×10^3 C) 1.1868×10^3 D) 1.18680×10^3	A) 3	B) 6	C) 4	D) 7	E) 5			
A) 5 B) 7 C) 8 D) 3 E) 4 4) How many significant figures are in the measurement, 0.0005890 g? A) 8 B) 4 C) 6 D) 7 E) 5 5) What answer should be reported, with the correct number of significant figures, for the following calculation? (433.621 - 333.9) × 11.900 A) 1.187×10^3 B) 1.19×10^3 C) 1.1868×10^3 D) 1.18680×10^3	21		_					
4) How many significant figures are in the measurement, 0.0005890 g? A) 8 B) 4 C) 6 D) 7 E) 5 5) What answer should be reported, with the correct number of significant figures, for the following calculation? $(433.621 - 333.9) \times 11.900$ A) 1.187×103 B) 1.19×103 C) 1.1868×103 D) 1.18680×103				D/ 3	E\			
A) 8 B) 4 C) 6 D) 7 E) 5 5) What answer should be reported, with the correct number of significant figures, for the following calculation? $ (433.621 - 333.9) \times 11.900 $ A) 1.187×10^3 B) 1.19×10^3 C) 1.1868×10^3 D) 1.18680×10^3	A) J	וןט ז	C) 8	<i>D</i>) 3	L) 4			
5) What answer should be reported, with the correct number of significant figures, for the following calculation? $ \begin{array}{c} (433.621 - 333.9) \times 11.900 \\ \text{A)} \ 1.187 \times 10^3 \\ \text{B)} \ 1.19 \times 10^3 \\ \text{C)} \ 1.1868 \times 10^3 \\ \text{D)} \ 1.18680 \times 10^3 \end{array} $	4) How many significant figu	ures are in the measurem	ent, 0.0005890 g?					
$(433.621 - 333.9) \times 11.900$ A) 1.187×10^3 B) 1.19×10^3 C) 1.1868×10^3 D) 1.18680×10^3	A) 8	B) 4	C) 6	D) 7	E) 5			
$(433.621 - 333.9) \times 11.900$ A) 1.187×10^3 B) 1.19×10^3 C) 1.1868×10^3 D) 1.18680×10^3	C) What answer should be r	anartad with the correct	r number of significant fi	ruras fartha fallowing s	alaulatian?			
A) 1.187×10^3 B) 1.19×10^3 C) 1.1868×10^3 D) 1.18680×10^3			i number of significant fig	gures, for the following c	aiculations			
B) 1.19 × 10 ³ C) 1.1868 × 10 ³ D) 1.18680 × 10 ³								
C) 1.1868×10^3 D) 1.18680×10^3								
D) 1.18680 × 10 ³								
6) How many mg does a 433 kg sample contain?	, , ,	B kg sample contain?						
A) 4.33 × 10 ⁸ mg	_							
B) 4.33×10^7 mg	•							
C) 4.33×10^{-3} mg	•							
D) 4.33 × 10 ⁶ mg	•							
E) 4.33×10^{-4} mg	E) 4.33 × 10 ⁻⁴ mg							
7) How many cm ³ are contained in 3.77×10^4 mm ³ ?	7) How many cm3 are conta	ained in 3 77 x 104 mm32						
A) 3.77 × 106 cm ³		iiiled iii 5.77 × 10 · iiiiil~;						
B) 3.77 × 10 ⁴ cm ³								
C) 3.77 × 10 ²⁰ cm ³								
D) 3.77 × 10-10 cm ³								
E) 3.77 × 10 ¹ cm ³								
8) A recipe requires 1.89 liters of milk for a soup base. How many quarts are needed?								
A) 1.89 qts B) 2.00 qts C) 1.79 qts D) 2.15 qts E) 2.10 qts	A) 1.89 qts	B) 2.00 qts	C) 1.79 qts	D) 2.15 qts	E) 2.10 qts			
9) If an object has a density of 8.65 g/cm ³ , what is its density in units of kg/m ³ ?	9) If an object has a density	of 8 65 g/cm3 what is its	density in units of ka/m	32				
A) 8.65 × 101 kg/m ³	-	of 6.05 g/cm², what is its	s density in units of kg/in	· ;				
B) 8.65 × 10-3 kg/m ³	J,							
C) 8.65 × 10-7 kg/m ³	0.							
D) 8.65 × 10 ³ kg/m ³	<u>-</u>							
E) 8.65 × 10-1 kg/m ³	•							
-/ 0.03 × 10 - kg/III-	-/ 0.03 × 10 - kg/1119							
10) How many cm are in 22.2 ft?	10) How many cm are in 22.2	. ft?						
A) 677 cm B) 105 cm C) 4.70 cm D) 56.4 cm E) 0.728 cm	A) 677 cm	B) 105 cm	C) 4.70 cm	D) 56.4 cm	E) 0.728 cm			
11) If the walls in a room are 955 square feet in area, and a gallon of paint covers 15 square yards, how many gallons of								
paint are needed for the room? (3 ft = 1 yd) A) 2.3 gallons B) 47 gallons C) 24 gallons D) 21 gallons E) 7.1 gallons			C) 24 gallons	D) 21 gallons	E) 7.1 gallons			

12) Gas is sold for \$1.399 p charged in Canadian do		la. Your car needs	12.00 gallons. How mu	ıch will your credit card b
A) \$63.54	B) \$16.79	C) \$	4.44	D) \$67.15
13) A piece of metal ore we level rises from 21.25 r	eighs 8.25 g. When a stu nL to 26.47 mL. What is th			taining water, the liquid
A) 3.21 g/mL	B) 0. 633 g/mL	C) 0	.3 12 g/mL	D) 1. 58 g/mL
14) How many of the follow 0. 408 9.040 0.0 4	wing numbers contain 3 si $00 - 9.05 \times 10^{24}$	ignificant figures?		
A) one	B) two	C) the	hree	D) four
15) Without using a calcula $\frac{(1 \times 10^{-5})^{-2}}{(1 \times 10^{-5})^{-2}}$	ator, solve the following p $\frac{10^4) \times (1}{(1 \times 10^{-1})^{-1}}$	roblem:		
	(1×10⁻			
A) 1 × 10 ³²	B) 1×10^{-4}	C) ₁	× 10 ⁵	D) 1×10^{23}
16) A fishing boat accident	ally spills 3.0 barrels of o			s 42 gallons. If the oil film
A) 1.9 × 106 m ²	B) 1.9 × 10 ⁻³ n	-	.9 × 10 ⁷ m ²	D) none of these
17) The estimated costs fo two paint brushes at \$ figures is \$	9.53 _{each} , and \$135 fo			
A) 2 × 10 ²		C) 193.7	D) $_{1.9} \times 10^2$	E) 193.72
18) How many liters of air and 1 in. = 2.54 cm (exactly		res 10.0 ft × 11.0 ft	and has an 8.00 ft ceil	ing?
A) _{2.68 ×} 10 ⁷		C) 8.84×10^5	D) 92.8	E) 26.8
19) What is the mass of a 4 A) 739 g	168 mL sample of ethanol B) 369 g	? The density of etha C) 468 g	nnol is 0.789 g/mL. D) 593 g	E) 234 g
20)				
20) Convert 21.8 in ³ to lite A) 0.0554 L	rs. (2.54 cm = 1.00 in) B) 1.33 × 10 ³ L	C) 8.58 × 10 ³ L	D) 8.58 L	E) 0.357 L
•				,
21) An elephant's bathtub bathtub in U.S. quarts?	•	wide, and 70 inches	deep. What is the capac	city of the elephant's
A) 3.4×10^4 qt	B) 9.3×10^3 qt	C) 34 qt	D) 1.1×10^4 qt	E) 2.2×10^4 qt
22) Convert 35 ft/s to units	s of m/s.			
A) 4.2 m/s	B) 11 m/s	C) 1.65 m/s	D) 0.074 m/s	E) 1100 m/s
23) Determine the number	of cm ³ in 21.0 U.S. qt.			
A) 20.0	B) 0.0199	C) 5.548	D) 19,900	E) 10.0
24) What mass of sugar, in is 10.5% sugar by mass		d from the evaporat	ion of water from 1.5 kg	g of a sugar solution which
A) 15.8 g	B) 0.158 g	C) 0.1575 g	D) 160 g	E) 157.5 g

25) A block of wood has dimensions of $1.2 \text{ m} \times 5.0 \text{ cm} \times 7.0 \text{ cm}$ and has a mass of 3.0 kg. What is the density of the wood?

	A) 0.0/1 g/mL	B) 1.4 g/mL	C) 0.71 g/m	L	D) 1400 g/mL	E) 140 g/mL	
26)	A 2.0 gal flask weighs 4.0 the liquid in g/mL? (1 gal	= 3.785 L, 1 lb = 453.6 g)					
	A) 0.60 g/mL	B) 0.14 g/mL	C) 0.72 g/m	L	D) 0.071 g/mL	E) 0.36 g/mL	
27)	What is the answer to the $\frac{37.1 + 7.1 + 8.32}{10.3 - 8.2}$	correct number of signif	icant figures	of the follov	ving calculation?		
	A) 25.0	B) 25.01	C) 30		D) 2.84	E) 25	
28)	Energy that is associated v	nergy that is associated with the position or composition of an object is called					
,	A) thermal energy	B) chemical ener		C) potentia		D) kinetic energy	
201	Give the units of heat cap	acity					
23)	A) mol/ °C	B) J/g °C	C) g/°C		D) J/°C	E) J/mole °C	
	•	78 5	,		, .		
30)	Give the units of specific h		6) 1		5) /00	5) 1/ 1 00	
	A) mol/ °C	B) 1/°C	C) J/g °C		D) g/°C	E) J/mole °C	
31)	Which of the following (w gaining 200.0 J of heat? A) 25.0 g Au, C _{Au} = 0.1. B) 50.0 g Cu, C _{Cu} = 0.38 C) 25.0 g Ag, C _{Ag} = 0.23 D) 50.0 g Al, C _{Al} = 0.903 E) 25.0 g granite, C _{gran}	28 J/g°C 35 J/g°C 35 J/g°C 3 J/g°C	provided) wo	ould snow ti	ne smallest tempera	ture cnange upon	
32)	32) Calculate the amount of heat (in kJ) required to raise the temperature of a 79.0 g sample of ethanol from 298.0 K to						
	385.0 K. The specific hea	at capacity of ethanol is 2 B) 12.9 kJ	c) 73.6 kJ		D) 28.4 kJ	E) 57.0 kJ	
	., ==	-,	- ,		-,	_,	
33)	A piece of iron (mass = 25 Assuming that no heat is I specific heat capacity of ir	ost to the cup or the surr	oundings, wh	nat will the f	_		
	A) 308 K	B) 287 K	C) 348 K		D) 388 K	E) 325 K	
34)	A 5.00-g sample of liquid water is °C. T					nal temperature of the	
	A) 25.2	B) 4.02	C) -21.0		D) 95.2	E) 29.0	
35)	The specific heat capacity 5.00 g of water from 25.		g-K. How mar	ny joules of l	neat are needed to r	aise the temperature of	
	A) 48.1 J	B) 840 J	C) 54.4 J		D) _{2.08 ×} 10 ⁻² ₁	E) _{1.89 ×} 10 ³ J	

- 1) C 2) D 3) E 4) B

- 5) B
- 6) A
- 7) E
- 8) B
- 9) D
- 10) A 11) E
- 12) A
- 13) D
- 14) C
- 15) D
- 16) A
- 17) B
- 18) B
- 19) B
- 20) E
- 21) D
- 22) B
- 23) D 24) D
- 25) C
- 26) E
- 27) E
- 28) C 29) D

- 30) C 31) D
- 32) A
- 33) A 34) E
- 35) B