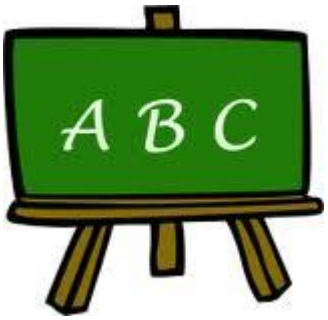


Name: _____

Woksheet Booklet

Katoomba High School

Stage 4 (7A)

Instructions

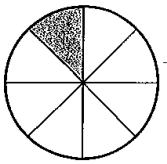
- Complete all the sheets in this booklet
- Write in the space provided
- Hand booklet in to Deputy Principal

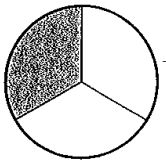
Express one number as a fraction of another

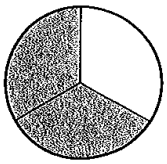
Fraction distraction

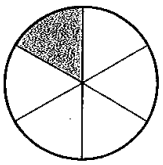
A

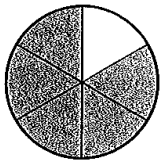
1. What fraction of each circle is shaded?

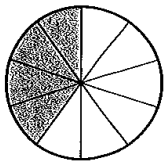
(a)  $\frac{1}{8}$

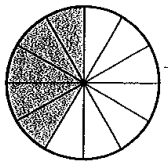
(b)  _____

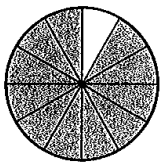
(c)  _____

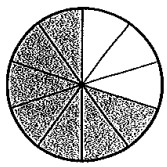
(d)  _____

(e)  _____

(f)  _____

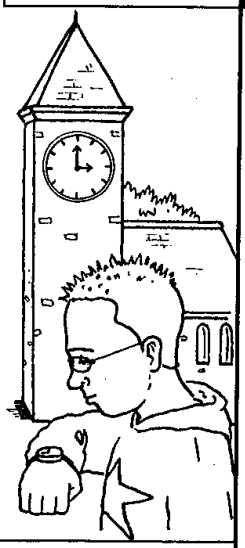
(g)  _____

(h)  _____

(i)  _____

2. Write the fractions above in order of size, starting with the smallest.

Look at the circles above to help you. !



3. What fraction of a complete turn does the minute hand of a clock turn through between:

(a) 10:00 and 10:15? $\frac{15}{60} = \frac{1}{4}$

(b) 10:00 and 10:20? _____

(c) 8:15 and 8:45? _____

(d) 7:30 and 7:40? _____

(e) 5:00 and 5:40? _____

(f) 3:05 and 3:50? _____

(g) 1:40 and 1:45? _____

(h) 12:05 and 12:55? _____

(i) 9:10 and 10:00? _____

(j) 2:15 and 2:40? _____

(k) 6:20 and 6:55? _____

(l) 4:15 and 4:16? _____

B

Alex is thinking of two times between 4:00 pm and 5:00 pm. Between the two times the minute hand turns $\frac{7}{12}$ of a complete turn. Find six pairs of times that Alex could be thinking of.

4:20 pm and 4:55 pm _____ _____

_____ _____

_____ _____

Remember that the number on the bottom of a fraction, called the denominator, tells you how many equal parts the whole is split into. The number on the top, called the numerator, is how many of those parts you are talking about. In A3, give your answers in their simplest form (divide the numerator and the denominator by the same number, if you can).

Developing Numeracy
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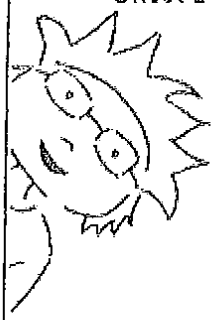
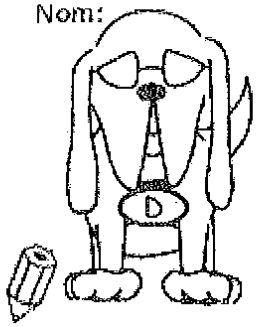
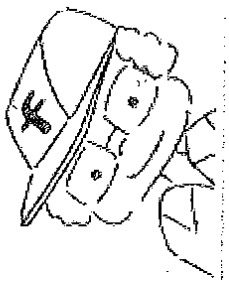
Numbers 22-31

Sheet 2

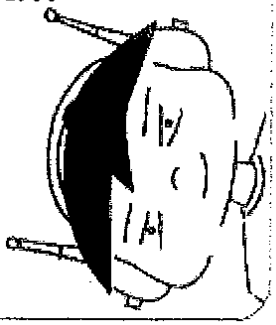
Nom:







0 zéro	_ _ seize
_ un	_ _ dix-sept
_ deux	_ _ dix-huit
_ trois	_ _ dix-neuf
_ quatre	_ _ vingt
_ cinq	_ _ vingt et un
_ six	_ _ vingt-deux
_ sept	_ _ vingt-trois
_ huit	_ _ vingt-quatre
_ neuf	_ _ vingt-cinq
_ _ dix	_ _ vingt-six
_ _ onze	_ _ vingt-sept
_ _ douze	_ _ vingt-huit
_ _ treize	_ _ vingt-neuf
_ _ quatorze	_ _ trente
_ _ quinze	_ _ trente et un



Week 8

MONEY

100c = $1.00

Examples

350c = $3.50
300c = $3.00
227c = $2.27

Exercise 8A

Write in dollars.

1. 200c
2. 150c
3. 345c
4. 400c
5. 239c
6. 131c
7. 279c
8. 500c
9. 536c
10. 1240c

Exercise 8B

Write in cents.

1. $1.24
2. $3.87
3. $6.00
4. $2.87
5. $9.45
6. $5.76
7. $2.45
8. $12.60
9. $23.56
10. $32.20

Addition and subtraction

We must all learn to add and subtract money easily and quickly if we are to look after our own pocket money and, later on, our own wages. If you can add numbers, then you can add money. Just remember to place the cents under the cents, the point under the point and the dollars under the dollars.

Exercise 8C

Work out the following:

1. \$2.56 + \$1.71
2. \$3.23 + \$2.82
3. \$1.09 + \$1.10
4. \$2.43 + \$3.12
5. \$3.33 + \$2.27
6. \$3.83 + \$2.34
7. \$5.63 + \$2.02
8. \$2.80 + \$2.08
9. \$7.45 + \$3.09
10. \$3.67 + \$1.01
11. \$4.66 + \$2.98
12. \$1.26 + \$3.55
13. \$10..01 + \$3.63
14. \$23.89 + \$32.78
15. \$45.65 + \$34.34

Example

\$4.32 + \$3.23

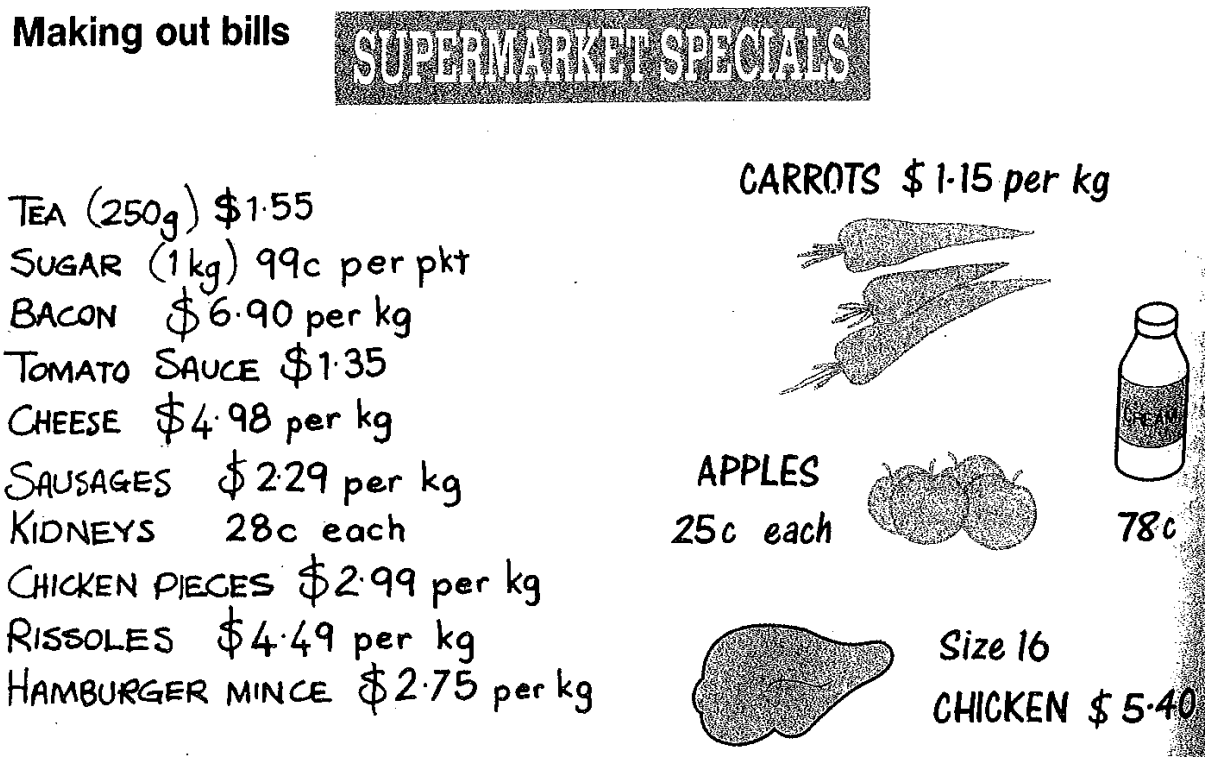
$$\begin{array}{r} \$4.32 \\ +\ \$3.23 \\ \hline \$7.55 \end{array}$$

Exercise 8D

Work out the following subtractions:

1. \$0.34 − \$0.21
2. \$3.76 − \$2.54
3. \$2.76 − \$0.32
4. \$4.89 − \$2.76
5. \$8.99 − \$3.22
6. \$6.45 − \$3.21
7. \$4.64 − \$1.42
8. \$6.77 − \$4.55
9. \$9.72 − \$7.41
10. \$7.47 − \$5.22
11. \$23.23 − \$20.12
12. \$10.89 − \$9.45
13. \$45.67 − \$23.56
14. \$65.23 − \$12.23
15. \$13.13 − \$12.00
16. \$5.00 − \$4.20
17. \$10.00 − \$9.75
18. \$20.00 − \$15.50
19. \$2.00 − \$1.98
20. \$1.00 − \$0.67

Making out bills



snapSHOT

How to spot a 'quacky' web site

The best way to avoid being quacked is to reject quackery's promoters. Each item listed below signifies that a website is not a trustworthy information source. The hyperlinks will take you to articles on Quackwatch that explain why.

General characteristics

- Any site used to market herbs or dietary supplements. Although some are useful, I do not believe it is possible to sell them profitably without deception, which typically includes: (a) lack of full disclosure of relevant facts, (b) promotion or sale of products that lack a rational use, and/or (c) failure to provide advice indicating who should not use the products. During the past 25 years, I have never encountered a seller who did not do at least one of these three things.
- Any site used to market or promote homeopathic products. No such products have been proven effective.
- Any site that generally promotes 'alternative' methods. There are more than a thousand 'alternative' methods. The vast majority are worthless.
- Any site that promotes 'nontoxic', 'natural', 'holistic', or 'miraculous' treatments.

False statements about nutrition

- Everyone should take vitamins.
- Vitamins are effective against stress.
- Taking vitamins makes people more energetic.
- Organic foods are safer and/or more nutritious than ordinary foods.
- Losing weight is easy.
- Special diets can cure cancer.
- Diet is the principal cause of hyperactivity.

False statements about 'alternative' methods

- Acupuncture is effective against a long list of diseases.
- Chelation therapy is an effective substitute for bypass surgery.
- Chiropractic treatment is effective against a large number of diseases.
- Herbs are generally superior to prescription drugs.
- Homeopathic products are effective remedies.
- Spines should be checked and adjusted regularly by a chiropractor.

False statements about other issues

- Fluoridation is dangerous.
- Immunisations are dangerous
- Mercury–amalgam ('silver') fillings should be removed because they make people sick.

Source: S. Barret, www.quackwatch.org/01QuackeryRelatedTopics/quackweb.html

Questions

1. What claims about nutrition does the writer recommend that you need to be aware of?
2. Using the search words 'nutrition', 'vitamins' and 'weight loss' find a website that promotes a nutrition-based product.
3. Critically analyse any specific claims that you believe may be false or inaccurate and say why you believe this to be so.

Consumer protection

Fortunately, a number of agencies provide accurate information about health products and services for young people and ensure their rights as consumers are protected. First, we need to be aware that Australia supports a United Nations agreement that has broad guidelines for consumer protection. The guidelines are:

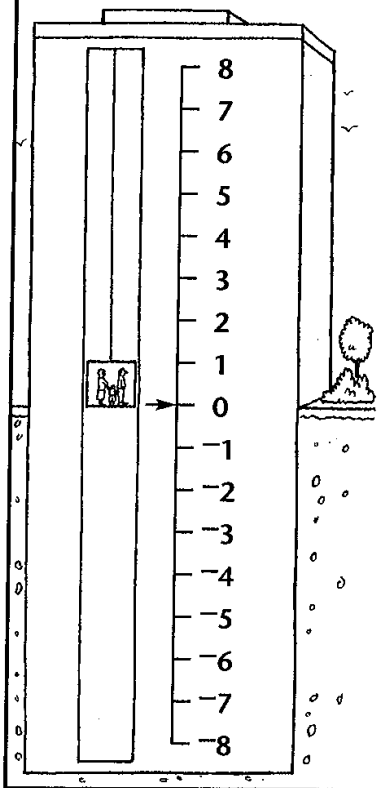
- the right to safety — consumers have a right to be protected against products and services that may be hazardous to one's health

Add and subtract positive and negative integers

Up and down

A

1. Follow the lift's movements, starting at the ground floor (zero). Write which floor the lift stops at each time.



From floor		To floor
0	down 6	−6
−6	up 8	
	down 4	
	up 9	
	down 7	
	down 5	
	up 8	
	down 6	
	down 2	
	up 4	
	down 6	
	up 11	
	down 7	
	down 2	
	up 7	

2. Write each instruction as an addition or subtraction statement. Use [+] for up and use [−] for down.

0 − 6 = −6

B

In a quiz, contestants score 2 points for a correct answer, −3 points for an incorrect answer and −1 point for a pass. What does each contestant score in total?

(a)	correct	incorrect	correct	incorrect	correct	pass	incorrect
	2	−3	2	−3	2	−1	−3
(b)	correct	correct	pass	incorrect	incorrect	incorrect	correct
(c)	pass	incorrect	correct	incorrect	correct	pass	correct
(d)	pass	correct	correct	incorrect	incorrect	correct	pass
(e)	incorrect	incorrect	incorrect	correct	correct	pass	correct

Counting up or down the number line will help you. It is sometimes useful to use zero as a 'stopover' when adding or subtracting: for example, if you are answering 6 – 9 = ?, go down from 6 to zero first, and then down three more to find the answer (⁻3).

Developing Numeracy
Numbers and the Number System
Book 1
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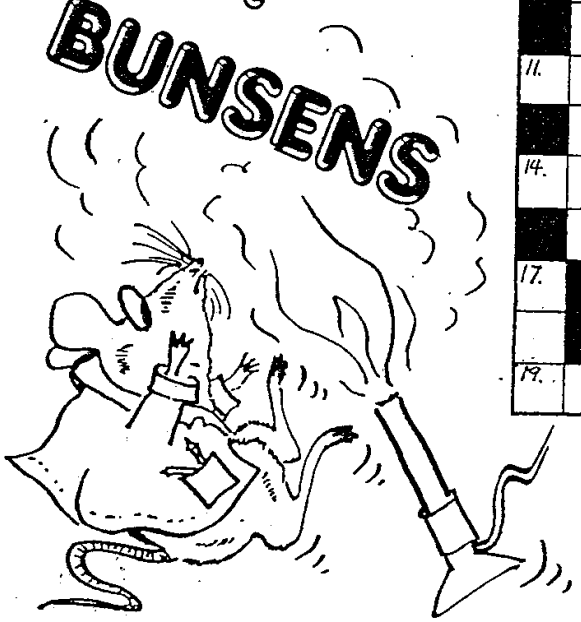
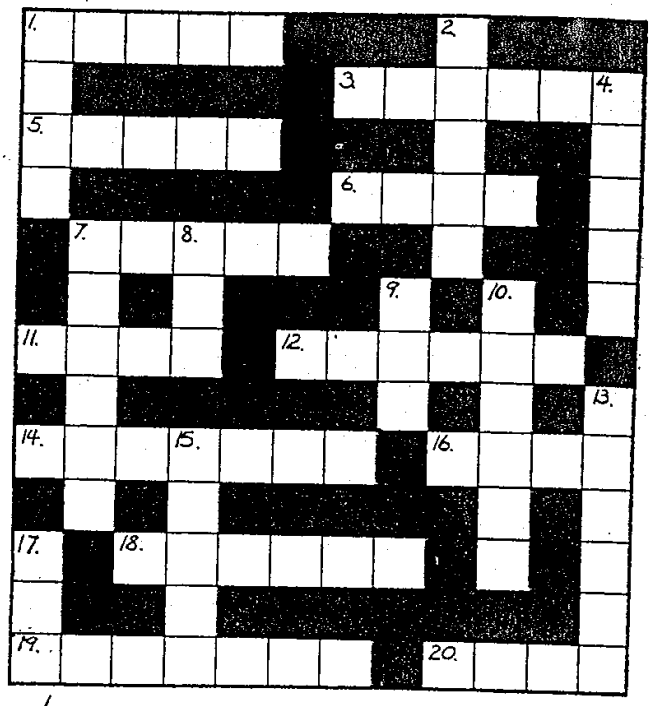
BEAKERS AND BUNSENS



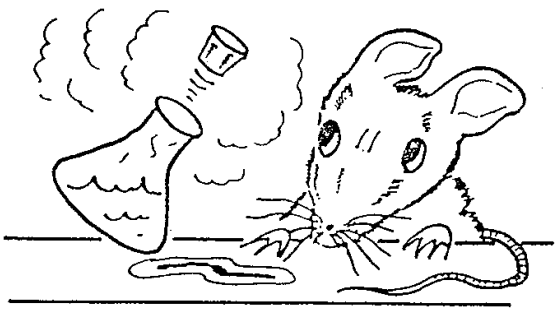


ACROSS

1. Do not test chemicals by using this sense
3. Colour of a smoky bunsen flame
5. Sensible footwear for the lab
6. Dangerous to do this to people in the lab
7. Laboratory accidents that should be treated with cold water
11. This solid can be used to put out small laboratory fires
12. Beakers or flasks are stood on this when they are heated
14. General name given to a laboratory chemical
16. Colour of a hot bunsen flame
18. Laboratory burner
19. Used for transferring small quantities of liquids
20. Chemical with a low pH

DOWN

1. What you have to do to a hypothesis
2. A conical piece of glassware
4. Should be applied immediately if chemicals get in the eye
7. Container for heating liquids
8. Used for stirring
9. Mixed with gas for a hotter flame
10. Controls the gas mixture in a bunsen
13. You do this with the results of experiments
15. Use this when heating a beaker or flask on a tripod
17. Unit of electrical current

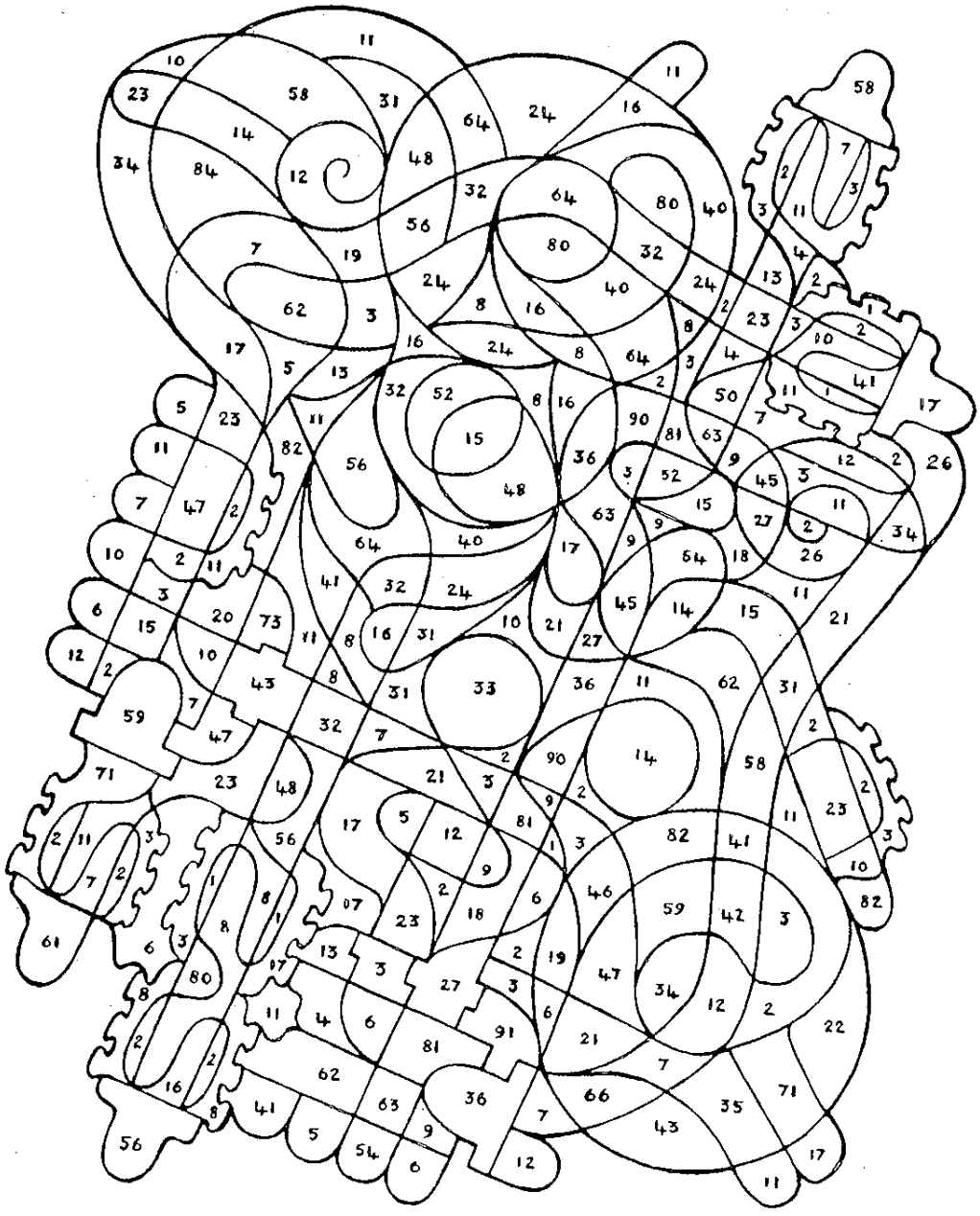


1

Colour in the answers to the

8x and 9x

tables in different colours



Classroom Unit 1 ate as in vibrate

The List

separate	illustrate	operate	appreciate	debate
estate	evaporate	concentrate	vibrate	participate

1 Unjumble these **list** words:

t t s l e i l u r a _ _ _ _ _ _ _ _ _ _ _ e b e d t a _ _ _ _ _ _

r t e t a c c n n o e _ _ _ _ _ _ _ _ _ _ _ _ _ r e e t p o a _ _ _ _ _ _ _

2 Write dictionary definitions for these **list** words:

a evaporate _____

b participate _____

c appreciate _____

3 Write these words in interesting sentences:

a separate _____

_____

b estate _____

_____

c vibrate _____

_____

4 Match the following definitions with **list** or **champs'** words:

to focus or direct towards one point _____ to go faster _____

to work or to perform surgery _____ to provide pictures _____

to have a space for _____

Word Building

1 Add the **suffix** –ion to the following words (be careful):

separate _____	operate _____	accommodate _____
appreciate _____	concentrate _____	evaporate _____
exaggerate _____	vibrate _____	participate _____
accelerate _____		

2 Select 3 of your new words and write each in a sentence.

_____

_____

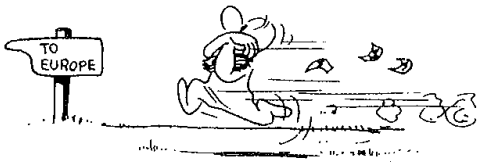
_____

For Champs accommodate accelerate exaggerate

Weekly Test Results: __ out of 10, plus __ Bonus Champs' Points = Total __

SUGGESTED PRACTICAL WORK

Pretend that you have been given $1000.00 to spend. Make a list of the things you would most wish to buy with the money.



WORDS TO LEARN

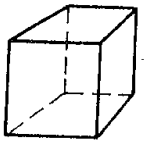
operation order grouping symbol

WEEKLY TEST 16

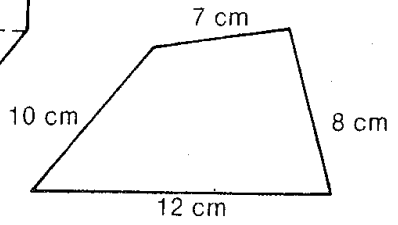
1. Work out the following:
   (a) $2 \times 3 + 6$ (c) $5 \times 3 + 4$
   (b) $4 \times 2 - 1$ (d) $6 \times 2 - 10$
2. Be careful with these:
   (a) $5 + 2 \times 3$ (c) $8 + 6 \times 2$
   (b) $2 \times 3 + 4$ (d) $4 + 7 \times 6$
3. Work out the following:
   (a) $(2 + 3) \times 2$ (c) $2 \times (6 + 4)$
   (b) $(5 - 4) \times 3$ (d) $4 \times (10 - 6)$
4. More brackets:
   (a) $(2 + 3) \times (3 + 4)$ (c) $(5 + 3) \times (10 - 6)$
   (b) $(3 + 5) \times (2 + 1)$ (d) $(11 - 3) \times (5 - 3)$

Looking back

5. (a) $176 \div 16$ (b) Find the product of 36 and 23.
6. (a) What is the name of this solid?
   (b) How many faces has it?
   (c) How many edges has it?



7. What is the perimeter of this figure?



8. Graph on the number line the odd numbers less than 11.
9. A farmer buys 13 m of chicken wire at $7.00 per metre. How much does it cost him?
10. Mrs Barker buys a tea set at $125, a set of saucepans costing $76 and an electric frypan costing $85. How much is her bill?

L'Ecole

A. Trouvez les mots français dans la quête («Cherchez-le-mot») et mettez un cercle autour de ces mots.

1. brosse
2. bureau
3. carte
4. cour de récréation
5. craie
6. crayon
7. élève
8. étudiant
9. étudiante
10. gomme
11. gymnase
12. horloge
13. livre
14. papier
15. professeur
16. pupitre
17. règle
18. salle de classe
19. stylo
20. tableau

S	A	C	V	O	I	R	C	E	B	S	T	P	O	U	N
V	O	R	I	R	A	P	H	O	R	L	O	G	E	O	S
C	T	A	B	L	E	A	U	E	O	S	B	E	I	A	I
R	L	Y	U	E	R	P	U	R	S	S	A	T	L	P	O
O	Y	O	R	A	V	I	P	C	S	A	A	L	P	R	N
I	N	N	E	U	I	E	L	R	E	É	E	T	S	A	C
E	O	O	A	T	L	R	E	H	R	D	R	O	L	A	R
É	A	U	U	A	È	F	O	C	E	I	O	P	G	P	U
L	R	I	E	G	E	R	É	C	E	É	T	U	X	I	E
È	C	R	L	R	E	R	L	C	A	L	E	R	É	L	S
V	S	E	U	L	E	A	O	T	E	É	M	G	U	P	S
E	T	E	R	D	S	P	U	I	G	Y	M	N	A	S	E
T	Y	T	R	S	I	L	E	G	M	R	O	H	I	L	F
R	L	U	E	T	É	E	R	V	U	B	G	M	O	G	O
A	O	T	É	T	U	D	I	A	N	T	E	E	S	M	R
C	R	A	I	E	Y	L	O	S	E	R	T	I	P	U	P

B. Trouvez le proverbe français en mettant un cercle autour des lettres qui restent.

C. Mettez le numéro correct du mot français qui correspond au mot anglais.

_____ book
_____ chalk
_____ chalkboard
_____ classroom
_____ clock
_____ desk (1)
_____ desk (2)
_____ rubber
_____ duster
_____ gymnasium
_____ map
_____ paper
_____ pen
_____ pencil
_____ playground
_____ ruler
_____ student (1)
_____ student (2)
_____ student (3)
_____ teacher

Introductory Physics

Assignment 5: States of Matter?

Water exists as ice, as a liquid and as water vapour. Liquid water, when cooled sufficiently, becomes ice. Ice *melts* when it is heated. When heated, water *evaporates*. It becomes a gas. If cooled, water vapour *condenses*, turning into a liquid once more, and *solidifies* upon further cooling.

States

Most substances occur in three forms: solid, liquid and gas. We call these forms the *states* in which these substances occur just as we might describe a person as in a state, or condition of shock. 'Melting' is an example of a 'change of state'.

Matter

Solids, liquids and gases all occupy space and have weight. These are the properties of *matter* as distinct from, say, *energy*, which does not occupy space or have weight.

Changing states

Under conditions of 'normal' air pressure, changes of state occur at certain temperatures. Pure water *freezes* at exactly 0°C and *vaporizes* at exactly 100°C. These are known as the freezing point and boiling point of water. In a pressure cooker it may *boil* at about 120°C while in the reduced pressure conditions of Mt Everest it may be as low as 70°C.

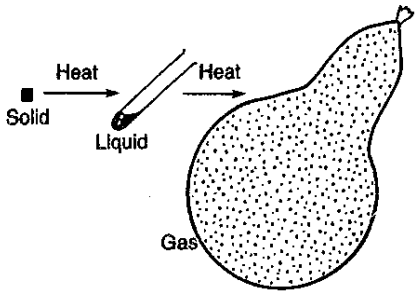
The melting or freezing point of substances as well as their boiling point are *characteristics* that may be used to identify them. Lead *melts* at 327°C, iron at

SUBSTANCE	MELTING / FREEZING TEMPERATURE	VAPORIZATION / CONDENSATION TEMPERATURE
Tungsten	3400°C	5930°C
Carbon	3730°C	4830°C
Iron	1528°C	3000°C
Copper	1083°C	2600°C
Tin	232°C	2270°C
Lead	327°C	1730°C
Table Salt	801°C	1465°C
Mercury	−39°C	375°C
Carbon Dioxide	−57°C	−57°C
Alcohol	−114°C	78°C
Oxygen	−219°C	−183°C
Helium	−270°C	−269°C

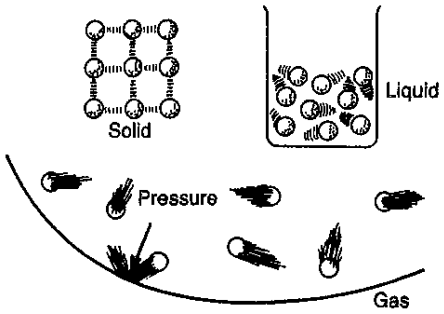
1528°C and tungsten at 3400°C. Mercury *freezes* at −39°C, carbon dioxide at −57°C, alchohol at −114°C and helium at −270°C (nearly 'Absolute Zero', which is the lowest temperature possible). Lead *boils* at 1730°C and tungsten at 5930°C, the highest of any element. Oxygen *liquefies* at −183°C and solidifies at −219°C. Table salt *fuses* at 801°C and the fusion point of aluminium is 660°C.

Two substances that are odd-men-out are glass and carbon dioxide. Solid carbon dioxide ('dry ice) doesn't melt or boil, but turns straight from a solid to a gas (it *sublimes*) at −57°C. Glass has no melting point but simply gets softer and softer as we heat it. Because it has no melting point, we describe it as a supercooled liquid.

Each of the three states of matter have quite different properties. When a solid melts the liquid formed occupies about the same volume as the solid — the atoms move no further apart. But a liquid flows and becomes the shape of its container. The atoms held in place in a solid begin to move about freely. Liquids mix, or *diffuse*, slowly. When a liquid becomes a gas its volume increases: its atoms are much further apart. As a result, gases are compressible whereas solids and liquids are incompressible.



A gas has a much larger volume than a solid or a liquid



SOLID	Fixed shape	Incompressible	Do not diffuse	Atoms bound close together in fixed positions
LIQUID	Flows	Incompressible	Diffuse slowly	Atoms close together but free to move about
GAS	Flows	Compressible	Diffuse rapidly	Atoms far apart and racing about madly

The atoms making up a gas move about very rapidly, striking the walls of the container and exerting pressure on it. Gases also diffuse rapidly due to the motion of their atoms. This picture of the motion of atoms in solids, liquids and gases is called the *Kinetic Particle Theory of Matter* (Greek: *Kinesis* — motion).

Questions

1. What is matter (paragraph 3)? In what three states does it occur?
2. Find phrases in the passage that have the same meanings as these words:
   (a) vaporizes;
   (b) sublimes;
   (c) condenses;
   (d) fuses.
   As an example — melts = turns to a liquid.
3. Find as many pairs of words as possible which describe change of state and which have opposite meanings, e.g. freezing and melting.
4. What do we mean when we say 'iron freezes at 1528°C'?
5. Which element has:
   (a) the highest melting point?
   (b) the lowest freezing point?
6. What are the boiling and freezing points of water under normal conditions? Does it always boil (or freeze) at these temperatures?
7. Describe the *Kinetic Particle Theory of Matter* with the aid of a diagram.
8. Which state of matter 'contains' the most heat?
9. Copy out the Table on page 12.
10. Copy these words into your spelling list: Matter, solid, liquid, gas gases, compressible, incompressible, diffusion, pressure, kinetic, particle, theory.

Advanced

11. Could we measure the boiling point of water with an alcohol thermometer? Is a mercury thermometer any use in measuring temperatures below − 40°C? Explain your answers.

Research

12. Why are carbon brushes used on the commutator of an electric motor? (There are two reasons.) Possibly you could ask someone who is an electrician.
13. Why are tungsten bits used to cut steel? (There are two reasons.) You could ask an industrial arts teacher.
14. What is liquid helium used for?
15. What is *Absolute Zero*? What happens to the atoms at this point? (See volume 2)

Home Study Unit 1

Debate is the death of conversation.
(Emil Ludwig)

1 Write in alphabetical order:

appreciate exaggerate accommodate estate evaporate accelerate

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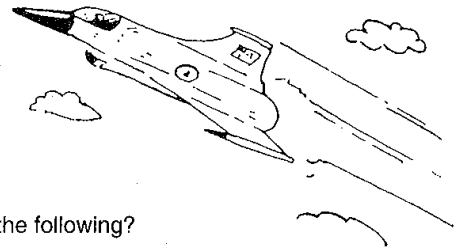
2 Write the smaller words in each of the following:

example: accommodate (4) = a date at ate



a concentrate (7) = ____ ____ ____ ____ ____ ____ ____

b estate (4) = ____ ____ ____ ____

c participate (6) = ____ ____ ____ ____ ____ ____

3 Which **list** or **champs'** words would be suitable **synonyms** for the following?

a draw _____ **b** part _____ **c** quicken _____

d partake _____ **e** work _____ **f** value _____

4 Use suitable **list** or **champs'** words to fill the gaps in these sentences:

a The recipe asked us to _____ the yolk from the egg white before placing it in the bowl.

b The wealthy businessman had left his entire _____ to his only daughter in his will.

c Billy, who had just told us he had been kidnapped by Aliens, was known to _____ a little.

d When the sun shone again we watched the liquid _____ before our eyes.

Vocabulary Extension

Which **list** or **champs'** words would best fit into these groups?

nurse, surgeon, rehabilitate, hospital, _____

discuss, argue, dispute, reason, _____

sketch, draw, engrave, draft, _____

magnify, expand, colour, overestimate, _____

shake, oscillate, quiver, tremble, pulsate, _____

General Knowledge

What am I?

1 I am the highest order of mammals which includes man, apes, monkeys etc. _____

2 I am what a cow does when it 'chews the cud'. _____

3 I come from the French words **presto** and **digit**. I mean to conjure or to create a magical illusion.

_____

snapSHOT

Half our nation is now overweight

HEALTH ministers are planning a national strategy to combat obesity, as latest research shows almost half the population of Australia is overweight.

Experts say obesity will overtake smoking as the biggest health problem of the decade. They are predicting a quarter of the population will be suffering from weight-related diabetes by 2013.

Doctors have coined the phrase 'diabesity' to describe the condition, which is affecting a rising number of chronically overweight adults and children. Health problems linked to weight are believed to be costing taxpayers at least $3 billion a year.

Researchers at Westmead Children's Hospital say four in 10 Australian children will be overweight within 10 years ... [and] the proportion of children who are overweight is growing by at least 1 per cent a year.

'Unless the trend reverses, we will run into perception problems — because that's going to be the way half the kids look,' Westmead Adolescence Health Research Centre executive director Dr Michael Booth says.

The average weight of Australian adults has increased five per cent in the past decade to 74.3 kilograms, according to a recent Australian Bureau of Statistics report.

More than half of all men (58 per cent) and 42 per cent of women are overweight ...

Diabetes Australia NSW spokeswoman Angie Middlehurst says children as young as six are being treated for mature-onset diabetes, a condition once confined to overweight adults in their 40s.

Fatty diets and a lack of exercise have also seen 10-year-olds treated for cardiovascular disease.

Source: K. Creer, S. Kearney & M. Zonneveldt, 'Half of our nation is now overweight', *The Sunday Telegraph*, 8 June 2003.

Questions

1. What proportion of Australia's population is overweight?
2. What will be the biggest health problem in this decade?
3. Explain why you think an overweight population is costly to taxpayers.
4. Explain what Dr Michael Booth means by 'perception problems'.
5. What diseases normally associated with middle age are increasing in children?

HEALTH FACT

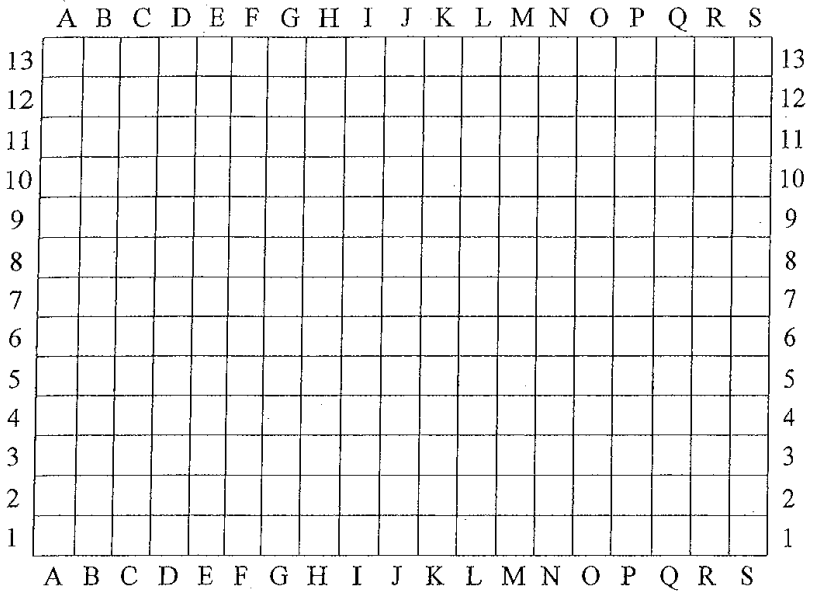
Over a 10-year period from 1985 to 1995, the number of overweight children almost doubled and the number of obese children more than tripled. In Australia, around 21 per cent of boys and 23 per cent of girls are now considered overweight or obese. Part of the obesity problem is linked to children not being active. Australian children now watch an average of 20–30 hours of television per week.

check & CHALLENGE

1. Do children and adolescents have similar diets? Explain, using examples.
2. Do you think you have healthy food habits? Explain why.
3. Identify the factors that influence your choice of food.
4. Describe the benefits of eating a balanced diet and participating in regular physical activity.
5. Explain what happens when your kilojoule intake is greater than the kilojoules used. Why is this a problem over time?
6. Explain how a combination of poor diet and lack of physical activity can affect your health.
7. How can food advertising on television influence a child's choice of foods?

Grid Reference - The Hidden Friend

Colour the following squares and you will find a smiling friend

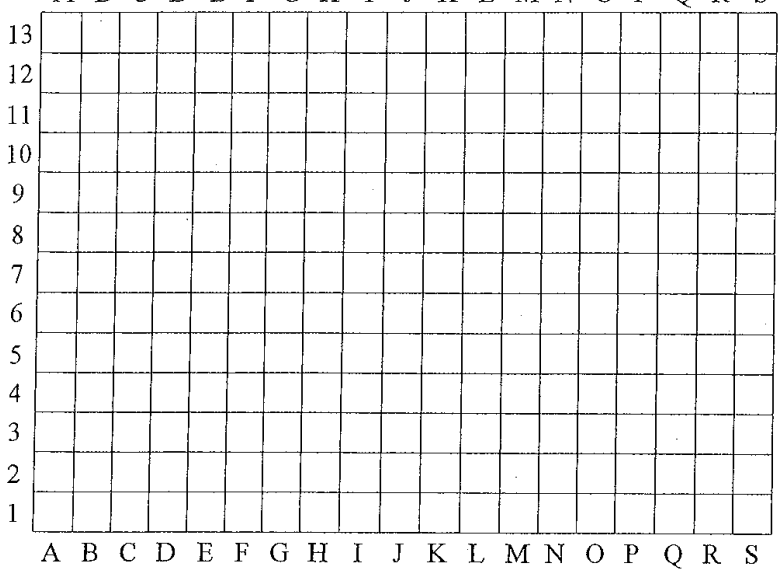


Co-ordinates:

D3 I2 C7
N5 B6 F2
D8 C4 L6
G2 E9 E3
J8 K11 L4
F12 M4 Q7
F4 F9 H12
I13 H2 J3
O8 P9 B5
M6 H9 D12
E13 P6 Q8
J12 K3 S8
G11 O5 K7
I9 R9 E6

Different colour

Colour the following squares in blue (or black and red when indicated) and you will find an enthusiastic friend



Co-ordinates: G11 A4 D1 F7 K12 L3
P6 N8 Q8 A9 I12 S8
C2 O2 E11 S9 H8 L12
M6 M11 N7 R10 O5
P12 R3 Q2 B5 E2
F8 N10 A7 M4 O8
Q1 J13 O11 M5 G4
C7 D8 C8 G5 E5
H12 B10 E3 F10 A8
G6 D12 E4 S4 P1
P8 S6 H3 Q11 S7
C1 B3 O3 C11 Q7
E8 A6 L8 D6 O4
R5

Change Colour:

K2 J1 J2 I2

Change Colour:

L9 J5 I5 J4 H9 K5

Mots cachés

Regarde bien la page.
Dans cette grille trouve onze mots de Noël.
Commence avec C et continue de lettre en lettre (pas de diagonale).

une carte

un sapin

une crèche

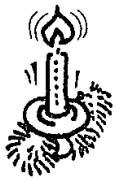
un cadeau

un ange

départ

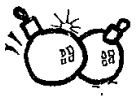
G	U	O	B	C	A	D	E
I	E	C	N	I	Y	0	A
N	E	A	R	P	E	J	U
N	R	E	T	A	U	X	N
E	C	R	E	S	L	E	O
N	I	D	C	H	E	B	O
D	G	E	L	I	E	S	U
E	N	A	E	O	T	E	L

arrivée

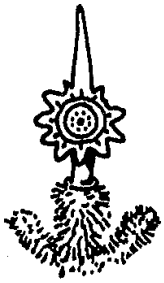


une bougie

un renne

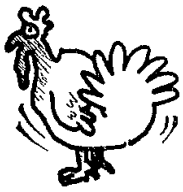


des boules



une étoile

une bûche



une dinde

des guirlandes

EXERCISE

12 Some Logical Thinking Puzzles

Objectives

To improve skills in • analysing written information to reach logical conclusions

Instructions

Analyse the information in each of the puzzles so that you can answer the questions which follow them.

Puzzle 1

Sally, Bob, Patrick and Richard are an astronomer, a geneticist, a radiologist and a pathologist.

(a) The radiologist often asked the geneticist if she could help him.
(b) Bob and the astronomer sometimes had lunch together.
(c) Richard, Bob and the radiologist all enjoy modern music.

Question 1:. Who does what?
Question 2: What does each of these branches of science study?

Puzzle 2

Angelo, Bronwyn, Charles, Donna and Eva have a beaker, a measuring cylinder, a Bunsen burner, a tripod and a test tube.

(a) Charles' piece of equipment is not made of glass.
(b) Eva's will do the same job as Angelo's but it is not as accurate.
(c) Donna needs matches to make hers work.

Question: Who has which piece of equipment?

Puzzle 3

Three pieces of laboratory apparatus are labelled A, B and C. They are used for measuring liquid volumes, heating things, and for cleaning test tubes.

A is not the Bunsen burner or the measuring cylinder, and B is not the Bunsen burner.

Question: What label is on each piece of equipment?

Puzzle 4

Four rocks are labelled P, Q, R and S.

(a) R is heavier than Q, but lighter than S.
(b) P is lighter than S, but heavier than R.
(c) The mass of the rocks is 5, 10, 15 and 20 grams, but not in that order.

Question: What is the mass of each rock?