



# **English & Math**

## **COMBO CLASS**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Use the dictionary/thesaurus for unfamiliar words.

Try to complete most of the booklet during class time.

A-level students must answer the "advanced/optional" sections.

Always ask questions!

Do not disturb other students.

You must write a composition every week.

Marks are entered into the "Progress Report".

Remember: You will get an "A" if you complete all your classwork/homework with only a few mistakes. However, you will get an automatic "D" if: you do not write a composition; you guess on your math work; you remove pages; or you continuously disturb other students.

Teacher/Parent Comments:

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**SPELLING CHALLENGE 1**

- 1) Try to circle the correctly spelled word. Do not look at the answers!
- 2) Check your answer with the answers at the bottom.
- 3) Write the correctly spelled word in the last column.

	<i>a</i>	<i>b</i>	<i>c</i>	
<b>1</b>	summit	summet	summat	
<b>2</b>	apex	apxe	appex	
<b>3</b>	enfironment	environment	enviorment	
<b>4</b>	contingence	contangince	contengince	
<b>5</b>	parrasitic	perrasitic	parasitic	
<b>6</b>	advokated	advocayted	advocated	
<b>7</b>	petishion	petition	petishun	
<b>8</b>	indurate	endurate	induraite	
<b>9</b>	voletile	volatial	volatile	
<b>10</b>	enflammable	inflammable	inflamable	
<b>11</b>	terse	tersz	terres	
<b>12</b>	disposal	desposal	disposel	
<b>13</b>	staible	staball	stable	
<b>14</b>	vasillate	vacilaite	vacillate	
<b>15</b>	tenyous	tenuous	tennuous	
<b>16</b>	stemulate	stimulait	stimulate	
<b>17</b>	ecosystem	egosystem	ecosytime	
<b>18</b>	lapsas	lapses	lapzes	
<b>19</b>	senility	senelity	senility	
<b>20</b>	parsist	persist	persist	

answers: aabac/cbacb/aaccb/cabac

bk1.11

## SPELLING CHALLENGE 2

- 1) Try to circle the correctly spelled word. Do not look at the answers!
- 2) Check your answer with the answers at the bottom.
- 3) Write the correctly spelled word in the last column.

	<i>a</i>	<i>b</i>	<i>c</i>	
1	gunt	gaunt	gant	
2	thinning	thining	thinnig	
3	reproduce	reporduce	reproduce	
4	regurgitate	regurgatate	regurgitait	
5	conceive	conceeve	concieve	
6	enargetic	energetic	energatic	
7	virile	verile	varile	
8	diologue	dialog	dialogue	
9	monologue	monolog	monalogue	
10	leethal	lethal	lethle	
11	murderous	murderus	murderuos	
12	bilingwal	bilinguel	bilingual	
13	monolingual	monolinguel	monolingwal	
14	amphibian	amfibian	amphibean	
15	raptile	reptial	reptile	
16	invelid	invalid	envalid	
17	paralyzed	paralized	parolyzed	
18	vandel	vandal	vandle	
19	crimanal	crimenal	criminal	
20	overlook	offerlook	overllook	

answers: bacaa/bacab/acaac/babca

d3.2

## SPELLING CHALLENGE 3

- 1) Try to circle the correctly spelled word. Do not look at the answers!
- 2) Check your answer with the answers at the bottom.
- 3) Write the correctly spelled word in the last column.

	a	b	c	
1	emits	emmits	emitts	
2	greivance	grievance	grievence	
3	assuage	asswaje	asuage	
4	feud	fewd	fued	
5	avershion	averrson	aversion	
6	exasparate	exasprait	exasperate	
7	hillarious	hilareous	hilarious	
8	dissect	disect	dissact	
9	refenue	revenew	revenue	
10	blandishmint	blandishment	blandeshmant	
11	liesure	leisure	leisure	
12	contaminated	contamnated	contamenated	
13	scoren	scorn	scorne	
14	britle	brittal	brittle	
15	omminous	ominous	ominnous	
16	dubeous	dubiose	dubious	
17	ignorant	icgnorant	ignorent	
18	frett	fret	frette	
19	perpetual	perpechual	perppetual	
20	chazm	chasmm	chasm	

answers: abaae/ccacb/eabcb/cabac


### Word List Practice

**1. Match each list word on the left with its proper synonym or definition.**

summit	explosive and unsteady
petition	steady and not easily changed
volatile	able to burn easily
inflammable	vague or weak
terse	a written request
stable	highest point
persist	hesitate
lapses	continue despite obstacles or setbacks
tenuous	short or brief
vacillate	periods of omissions or errors

**2. Complete these sentences using the list words above. Use each word only once.**

Many angry residents circulated a \_\_\_\_\_ to have their garbage picked up for free.

The window washers refused to continue because their ladder wasn't \_\_\_\_\_.

Roger was prone to \_\_\_\_\_, just like Hamlet in Shakespeare's play.

Jason's fierce temper makes him a \_\_\_\_\_ hockey player.

Petroleum is an \_\_\_\_\_ substance.

We could see for miles from the mountain's \_\_\_\_\_.

Maria failed her math exam because she only had a \_\_\_\_\_ grasp on the concepts of multiplication and subtraction.

Despite the obstacles, we must \_\_\_\_\_ in our noble quest!

The \_\_\_\_\_ in his memory were caused by a blow to the head.

Mary abruptly hung up the phone after Kurt's \_\_\_\_\_ reply.

### **ANTONYM CHALLENGE**

(Find 8 out of 10!)

A) Fill in the blank with an <sup>Synonym</sup> ~~antonym~~ for the word presented. Every solution in this section must begin with the letter J.

1. envious \_\_\_\_\_

6. imperil \_\_\_\_\_

2. moist \_\_\_\_\_

7. unite \_\_\_\_\_

3. pitcher \_\_\_\_\_

8. merry \_\_\_\_\_

4. law \_\_\_\_\_

9. diary \_\_\_\_\_

5. decide \_\_\_\_\_

10. gemstone \_\_\_\_\_

B) Fill in the blank with an <sup>Synonym</sup> ~~antonym~~ for the word presented. Every solution in this section must begin with the letter Y.

1. immature \_\_\_\_\_

6. sailboat \_\_\_\_\_

2. delicious \_\_\_\_\_

7. lawn \_\_\_\_\_

3. bellow \_\_\_\_\_

8. pull \_\_\_\_\_

4. annually \_\_\_\_\_

9. cowardly \_\_\_\_\_

5. surrender \_\_\_\_\_

10. although \_\_\_\_\_

### **BONUS BOX: Match the language with the country:**

Tamil  
English  
French  
Spanish  
Mandarin  
Persian

New Zealand  
Argentina  
China  
Sri Lanka  
Cameroon  
Iran

## **SUBJECT – VERB AGREEMENT**

**The Golden Rule:** Singular subjects take singular verbs, and plural subjects take plural verbs.

**Here are the irregular rules:**

- a) *Everyone* and *each* are singular subjects and therefore require singular verbs.  
(e.g. *Everyone is guilty*)
- b) Singular subjects connected by conjunctions such as *either-or*, *neither-nor*, *or*, and *nor* stay singular.  
(e.g. *Neither Bill nor John is getting a raise. Either Bill or John is right.*)
- c) Some expressions (as well as, including, together with, with) are set off by commas in a sentence. They do not change a singular subject to plural.  
(e.g. *Bill, together with John, is going on vacation.*  
*Bill, as well as Joe, plans to see Spain.*)

**Circle the verb which correctly matches the subject in each sentence:**

1. We, as a group, (is, are) unconcerned about your opinion.
2. The group, on the other hand, (is, are) greatly concerned about your money.
3. The name applied to the seabirds of the Atlantic (is, are) the Albatross.
4. Students (go, goes) to school in the beginning of September.
5. There (is, are) no mistakes on your examination.
6. Neither Hubert nor Annika (is, are) going to Europe this summer.
7. Hubert, along with Annika, (is, are) going to Mexico instead.
8. Each of them (is, are) crazy about the other.

## **ACADEMIC WRITING**

### **THE HAMBURGER PARAGRAPH**

The main idea of the paragraph is stated in the **topic sentence**. The topic sentence is usually the first sentence in the paragraph.

A topic sentence is given below. In the space provided, add four specific details which would create an interesting paragraph. Make sure that each detail is included in the idea expressed in the topic sentence.

**TOPIC SENTENCE:** *If I could have been born at any other time in history, I would choose \_\_\_\_\_.* (complete the sentence)

**DETAILS:** (give reasons to back up the statement – eg. *I could watch beheadings [1790s, France]*)

- 1.
- 2.
- 3.
- 4.

Use the details and the topic sentence above to create a powerful paragraph:

## COMPREHENSION

## *Home Improvement Tips*

If you are planning to paint your house this summer, I have some useful tips on painting. The first step towards satisfactory painting is the selection of the paint and the colour. Make sure that the paint you select will adhere to an existing paint. Another area in which you need to take extra care is colours. Colours often look different under artificial light than in daylight. So check the paint chips in the daylight before ordering the paint. Once you are ready with the paint, select a warm and dry day to start painting. Before you start painting, make sure you have trimmed the trees and shrubs away from the house. While painting, paint an entire section at one time. Don't stop halfway through the section; otherwise the paint will dry unevenly. Use a good sash brush for windows. And when you are done painting, float a thin layer of solvent on the surface of the remaining paint, seal the can, and store it in a warm, dry place. It will last for years.

## The Distribution Law - It's the LAW!

The Distributive Law is one of the basic laws of algebra.

$$\text{Example: } 8 \times (2 + 4) = 5 \times 2 + 5 \times 4 = 10 + 20 = 30$$

$$8 \times (30 + 8) = 2 \times 30 + 2 \times 8 = 60 + 16 = 76$$

$$8 \times (400 + 30 + 1) = 2 \times 400 + 2 \times 30 + 2 \times 1 = 800 + 60 + 2 = 862$$

The process of going from  $2x(20x3) = 2x20 + 2x3$  is called expanding the expression.

Expand these expressions, don't solve it:

$$\underline{1} \quad 9 \times (2 - 4) = \underline{9 \times 2 - 9 \times 4}$$

$$\underline{5} \quad 5 \times (2 + 3 + 4) = \underline{\quad}$$

$$\underline{2} \quad 2 \times (10 + 8) = \underline{\quad}$$

$$\underline{6} \quad 2 \times (3 - 8 + 14) = \underline{\quad}$$

$$\underline{3} \quad 3 \times (4 + 1) = \underline{\quad}$$

$$\underline{7} \quad 12 \times (4 - 3 - 11) = \underline{\quad}$$

$$\underline{4} \quad 5 \times (3 + 8) = \underline{\quad}$$

$$\underline{8} \quad h \times (b + c + d) = \underline{\quad}$$

Expand and solve:

Expand (1)

Expand (2)

Solve

$$\underline{1} \quad 4 \times (20 + 4) = \underline{4 \times 20 + 4 \times 4} = \underline{80 + 16} = \underline{96}$$

$$\underline{2} \quad 4 \times (30 + 7) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{3} \quad 3 \times (20 + 1) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{4} \quad 10 \times (10 + 7) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{5} \quad 5 \times (10 + 7) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{6} \quad 11 \times (10 + 4) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{7} \quad 7 \times (10 + 8) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{8} \quad 7 \times (50 + 3) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{9} \quad 5 \times (200 + 80 + 4) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{10} \quad 9 \times (100 + 30 + 1) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{11} \quad 2 \times (100 + 20 + 5) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

$$\underline{12} \quad 5 \times (100 + 50 + 2) = \underline{\quad} = \underline{\quad} = \underline{\quad}$$

## The Distribution Law - It can be useful.

The Distributive Law is one of the basic laws of algebra.  $a \times (b + c) = a \times b + a \times c$

Note:  $5 \times (5+7)$  is the same as  $5(5+7)$

Example:  $5(5 + 4) = 5 \times 5 + 5 \times 4 = 10 + 50 = 30$        $7(5 + 3) = 7 \times 5 + 7 \times 3 = 6 + 51 = 35$

Review:

Expand these expressions, don't solve it:

1  $8 \times (8 - 4) =$  \_\_\_\_\_

3  $2 \times (2 + 3 + 4) =$  \_\_\_\_\_

5  $8 \times (13 - 8) =$  \_\_\_\_\_

4  $2 \times (3 - 8 + 6) =$  \_\_\_\_\_

Expand and solve:

Expand (1)

Expand (5)

Solve

1  $4 \times (6 - 4) =$  \_\_\_\_\_ = \_\_\_\_\_

3  $8 \times (8 + 7) =$  \_\_\_\_\_ = \_\_\_\_\_

=

2  $8 \times (8 + 7) =$  \_\_\_\_\_ = \_\_\_\_\_

4  $3 \times (4 + 11) =$  \_\_\_\_\_ = \_\_\_\_\_

=

3  $3 \times (4 + 11) =$  \_\_\_\_\_ = \_\_\_\_\_

5  $13 \times 35 =$  \_\_\_\_\_

=

We can use the Distributive Law to mentally multiply larger numbers. Soon you will be able to

do these calculations in your head:  $6 \times 57$      $9 \times 83$      $13 \times 35$      $15 \times 98$

Using the Distributive Law we can break down large numbers to make the calculations easier.

1  $6 \times 57 = 6(50+7) = 6 \times 50 + 6 \times 7 = 300 + 42 = 342$

2  $7 \times 99 = 7(100 - 1) = 7 \times 100 - 7 \times 1 = 700 - 7 = 693$

3  $6 \times 98 = 6(100 - 2) = 6 \times 100 - 6 \times 2 = 600 - 12 = 588$

4  $4 \times 199 = 4(200 - 1) = 4 \times 200 - 4 \times 1 = 800 - 4 = 796$

5  $6 \times 125 = 6(100 + 25) = 6 \times 100 + 6 \times 25 = 600 + 150 = 750$

6  $3 \times 117 = 3(100 + 17) = 3 \times 100 + 3 \times 17 = 300 + 51 = 351$

7  $14 \times 22 = 14(20 + 2) = 14 \times 20 + 14 \times 2 = 280 + 28 = 308$

8  $30 \times 65 = 30(60 + 5) = 30 \times 60 + 30 \times 5 = 1800 + 150 = 1950$

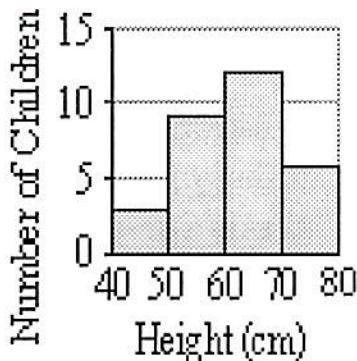
9  $11 \times 75 = 11(70 + 5) = 11 \times 70 + 11 \times 5 = 770 + 55 = 825$

10  $13 \times 55 = 13(50 + 5) = 13 \times 50 + 13 \times 5 = 650 + 65 = 715$

## Multiple Choice

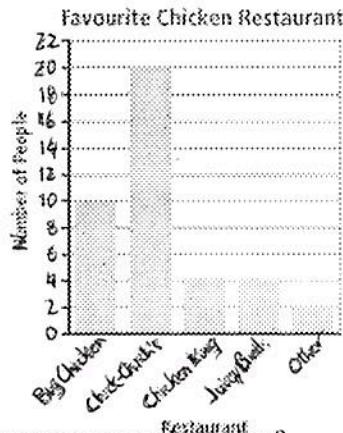
1. Which of these could be the range for children's heights shown in the histogram?

a. 40–80 cm      c. 51–80 cm  
b. 50–81 cm      d. 50–80 cm



2. Why would you not want to use a histogram to display the data shown in this bar graph?

a. you cannot show five bars on a histogram  
b. the axis would be too crowded  
c. the graph is displaying categories of data  
d. none of the above



3. When drawing a circle graph, which item should you use to measure each section?

a. compass      c. ruler  
b. protractor      d. none of the above

4. A histogram should

a. have bars of equal width      c. have bars connected  
b. be organized into intervals      d. all of the above

5. Martin is conducting a survey to determine if the school cafeteria should stop selling pop. From what population should he take his sample?

a. adults that do not have any kids      c. people that are allergic to pop  
b. people that work at a pop factory      d. people that stay for lunch

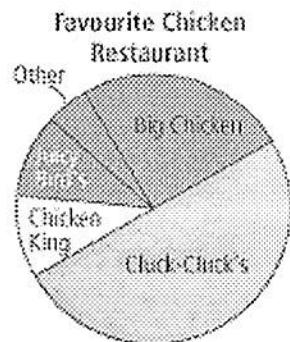
6. The high and low temperatures (°C) in Toronto for a week are as follows: (23, 15), (22, 17), (29, 19), (19, 15), (21, 11), (20, 17), and (21, 18). What is the best way to organize and display the data?

a. comparative bar graph      c. histogram  
b. circle graph      d. stem-and-leaf plot

7. When creating a circle graph, you can use simple fractions to represent degrees of a circle. Which fraction would be represented by 60°?

a. $\frac{1}{4}$	c. $\frac{1}{3}$
b. $\frac{1}{60}$	d. $\frac{1}{6}$

8. What percentage of the sample prefer Cluck-Cluck Restaurant?



a. 40%      c. 60%  
 b. 50%      d. none of the above

9. A grade 8 PE class were surveyed about how often they exercise in a week.

Time	Tally	Frequency
Every day		10
Every other day		6
Only on weekends		14

If there are 500 students in the school, how many do you expect would exercise every day?

a. 134      c. 198  
 b. 167      d. 200

#### Short Answer

10. Ricky asked 80 people what their favourite family pet was. He lost the piece of paper that he used to record tally marks. Complete the table to show how many people preferred each type of pet.

Favourite Pets	Percent out of 80 people	How many people out of 80
Dogs	60%	
Cats	20%	
Snakes	5%	
Birds	15%	

11. The following average daily temperatures were recorded on 12 consecutive days:  
 26, 28, 27, 32, 19, 14, 18, 22, 20, 25, 29, and 24

a) Organize the temperatures into intervals into the following table.

Temperatures (°C)	Tally	Frequency
10–14		
15–19		
20–24		
25–29		
30–34		

b) Construct a histogram to show the data.

## MORE BASIC ALGEBRA

**Solve using algebra:**

$$x + 15 + 2x = 30$$

**Group the x's together.**

$$3x + 15 = 30$$

**Subtract 15 from both sides.**

$$3x + 15 - 15 = 30 - 15$$

**Divide both sides by 3.**

$$3x/3 = 15/3$$

**Finally, the answer!**  $x = 5$ **Check your answer:**  $5+15+2(5) = 30$ 

Algebra is basically  
doing the same thing  
to both sides.  
The goal is to get  
the X on one side  
all by itself.  $X = ?$

**Solve Using Algebra:***...a little more difficult...*

1)  $3x + 4 = 7$

7)  $3x - 6 = x$

2)  $4x + 3x + 2x = 45$

8)  $3x + x = 3x + 8$

3)  $2x - x + 12 = 22$

9)  $5x + 2x = 4x + 36$

4)  $3x + 2x + 4x = 180$

10)  $3x + x - 10 = x + 130$

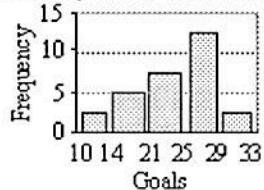
5)  $14 - 2x = 6$

11)  $x + 4x - 2x - 13 = 50$

6)  $7x - 2x + 3x = 24$

12)  $84 - 2x = 3x + 5x + 14$

12. Identify three errors in the histogram.



13. Chris asked 160 people which fast food they preferred. He lost the piece of paper that he used to record his tally marks. Complete the table to show how many people preferred each type of food

Favourite Foods	Percent out of 160 People	How Many People out of 160
Pizza	60%	
Subs	20%	
Hamburgers	15%	
Chicken	5%	

14. A group of teens were asked about their favourite sports to watch.

a) Complete the frequency column in the following table.

Favourite Sports to Watch

Sports	Tally	Frequency
Baseball	/// / / /	
Hockey	/// / / /	
Golf	/// / / /	
Tennis	///	
Basketball	///	

b) Draw a circle graph to display the data.

15. As they are leaving the theatre, a group of teens are asked how often they go to the movies. Identify the population from which the sample is taken.

16. Mr. Wilson keeps track of the number of books girls and boys in his class read for the past four years.

Year	2000/1	2001/2	2002/3	2003/4
Number of girls	167	156	189	120
Number of boys	132	139	148	150

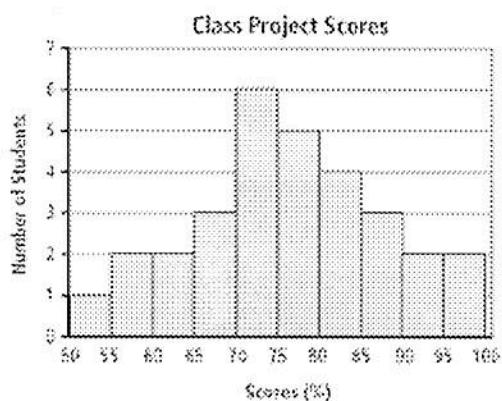
a) Draw a comparative bar graph to illustrate the data.

b) What information can you determine from the data?

## Challenge Problems (Optional)

17. How many students handed in the class project?

☺ OPTIONAL:  
FOR A-LEVEL OR  
FAST STUDENTS



18. Grade 7 and grade 8 students were asked about sports.

a) Complete both tables.

**Grade 7 Students**

Sport	Tally	Frequency
Soccer		
Hockey		
Football		
Baseball		

**Grade 8 Students**

Sport	Tally	Frequency
Soccer		
Hockey		
Football		
Baseball		

b) Draw a comparative bar graph using frequencies.

c) What is the most popular sport?

d) What survey question do you think the sample was asked?

## **COMPOSITION**

Think of a skill you possess (e.g. some people are good at home repairs, some are good athletes, some write good stories). Record some tips that might help others with this skill, and then describe your most recent work, project or performance. (Remember to write your composition in **full sentences** and to double check your work for spelling mistakes.)

TazTech

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## Education Centres