

Name: .....

Date:.....

Use your mathematical skills to solve the following problems. Remember to show all of your workings and check your answers.

There has been a zombie virus outbreak in your school! The virus is spreading fast and all of the teachers have already been infected! You are hiding out in your classroom, when you remember something that your head teacher said at assembly:

*“In case of a zombie apocalypse, fetch the antidote straight away!”*

The location of the antidote is top secret because it is a very strong medicine. Luckily, each classroom has a set of codes and clues that will allow you to work out where the antidote is located. The clues will take you through a safe route to collect the antidote. You must get straight to work on solving the clues...but work carefully! If you are not careful, you may take the wrong route and be caught by bloodthirsty zombies! You must check that you have the correct directions before you make a run for it.



Good luck with surviving the zombie apocalypse!

**Clue one**

Solve the following fractions. If more answers are over 120, then go upstairs. If more answers are under 120, then the antidote is on the ground floor.

- 1.  $\frac{1}{6}$  of 300 = \_\_\_\_\_
- 2.  $\frac{1}{4}$  of 500 = \_\_\_\_\_
- 3.  $\frac{1}{10}$  of 100 = \_\_\_\_\_
- 4.  $\frac{1}{8}$  of 800 = \_\_\_\_\_
- 5.  $\frac{2}{6}$  of 300 = \_\_\_\_\_

Write the solution below:

\_\_\_\_\_

**Clue two**

Solve the following word problems to get the next direction to the antidote. If more answers are even, you head towards the playground. If more answers are odd, you go past the lunch hall.

1. If there are 9 zombies on the loose and each one infects another 59 people, how many zombies are there now?

2. If 42 infected zombies each infect another 10 people, how many will be infected altogether?

3. If you find 306mls of antidote medicine and you need to share it equally among 6 victims, how many millilitres of antidote will each victim get?

4. If 906 people have the zombie virus but 354 get the antidote in time, how many people will be cured?

5. If there are 542 zombies and they catch and infect another 305, how many zombies are there now?

Write the solution below:

### Clue 3

The grid references will give you the words to your next clue. You may have to unscramble the words for them to make sense.

	A	B	C	D	E
1	lunch	go	antidote	room	the
2	outside	canteen	hall	first	shop
3	gym	survivors	last	senior	over
4	class	zombies	infant	past	year

C2 \_\_\_\_\_ E1 \_\_\_\_\_ B1 \_\_\_\_\_ D4 \_\_\_\_\_ A3 \_\_\_\_\_

Unscramble the words and right the solution below:

Clue 4

The alphabet has been replaced by roman numerals.

A - VI	H - VIII	O - V	V - XI
B - IV	I - X	P - XII	W - II
C - XIII	J - XVI	Q - XVIII	X - XX
D - XV	K - I	R - XXI	Y - XXV
E - VII	L - XXIII	S - III	Z - XIX
F - XIV	M - XVII	T - XXIV	
G - XXII	N - XXVI	U - IX	

The code you need to crack is written in numbers. Find the equivalent value in Roman numerals and substitute it with the corresponding letter. The first one has been done for you as an example.

24, 8, 7      6, 26, 24, 10, 15, 5, 24, 7      10, 3      5, 26      24, 8, 7

I H E      \_ \_ \_ \_ \_      \_ \_      \_ \_      \_ \_ \_ \_

23, 7, 14, 24      8, 6, 26, 15      3, 10, 15, 7

\_ \_ \_ \_      \_ \_ \_ \_      \_ \_ \_ \_

Roman numeral help chart

1 = I	8 = VIII	15 = XV	22 = XXII
2 = II	9 = IX	16 = XVI	23 = XXIII
3 = III	10 = X	17 = XVII	24 = XXIV
4 = IV	11 = XI	18 = XVIII	25 = XXV
5 = V	12 = XII	19 = XIX	26 = XXVI
6 = VI	13 = XIII	20 = XX	27 = XXVII
7 = VII	14 = XIV	21 = XXI	28 = XXVIII

Clue 5

in 400	find 1000	second 5000	past 100	under 2	playground 4	corridor 7000
first 8000	bins 300	go 60	The 3	left 700	School 20	swings 70
area 500	antidote 6000	right 2000	infants 1	seniors 30	class 40	outside 50
the 10	lunch 200	janitor 6	inside 80	Is 800	over 900	office 5
track 600	garden 4000	slide 9	on 8	near 7	behind 3000	top 90

Solve the place value questions below and match the answers with the numbers in the grid above to collect the words for your final clue. Unscramble the words and you will soon have the antidote!

- In 5402 what is the value of 4? \_\_\_\_\_
- In 3710 what is the value of 1? \_\_\_\_\_
- In 6032 what is the value of 6? \_\_\_\_\_
- In 9843 what is the value of 3? \_\_\_\_\_
- In 2857, what is the value of 8? \_\_\_\_\_
- In 3124 what is the value of 2? \_\_\_\_\_
- In 7005 what is the value of 5? \_\_\_\_\_

Unscramble the words and write the solution below:

\_\_\_\_\_

Well done! You have solved the clues and found the antidote.



Answers

**Clue 1**

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1. 50 – under
2. 125 – over
3. 10 – under
4. 100 – under
5. 100 – under

Most answers are under 125, so the antidote is on the ground floor.

**Clue 2**

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1. 531 – odd
2. 420 – even
3. 51 – odd
4. 552 – even
5. 847 – odd

There are more odd answers, so go past the lunch hall.

**Clue 3**

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C2 hall      E1 the      B1 go      D4 past      A3 gym

Go past the gym hall.

**Clue 4**

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The antidote is on the left hand side.

**Clue 5**

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1. 400 – In
2. 10 – the
3. 6000 – antidote
4. 3 – the
5. 800 – the
6. 20 – school
7. 5 – office

The antidote is in the school office!