

20 Questions for New Year



Name _____ Date _____

1. How many letters are there in the **Happy New Year**?
2. What do the fifth and the ninth letter have in common?
3. Which letter or letters appear the most times in **Happy New Year**?
4. How many vowels are there in **Happy New Year**?
5. How many consonants are there in **Happy New Year**?
6. Write down the ratio of consonants to vowels.
7. Which pairs of numbers, when multiplied together, give the answer to Q1?
8. Write down the ratio of vowels to consonants.
9. If you assign numerical values to each letter of the alphabet in the sequence $a=1, b=2, c=3, \dots, z=26$, what is the total numerical value of **Happy New Year**?
10. Re-arrange the letters of **Happy New Year** into alphabetical order.
11. How many letters belong to the first half of the alphabet and which ones are they?
12. How many letters belong to the second half of the alphabet and which ones are they?

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13. By using the numerical values from Q9, calculate the sum of the letters in your answers to Q11 and Q12 by replacing the letters with their equivalent numbers and adding them up. Write your answers in the boxes below:

First half:	Second half:
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14. Again using the numerical value of the letters, work out the total for the vowels and the total for the consonants and write them in the boxes below:

Vowels:	Consonants:
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15. What is the numerical ratio of vowels to consonants? Simplify if possible.

16. By using the numerical values of the letters, calculate the mean (numerical) value of a letter in **Happy New Year**. (*Hint: use your answers to Q1 and Q9*)

17. What is the range of the values of the letters in **Happy New Year** – use the numerical values for the letters to calculate this.

18. Which letter or letters represents the “modal value” of **Happy New Year**?

19. What is the median of the values of the letters in **Happy New Year**? What letter does this represent?

20. What is the numerical ratio of the total for the first half of the alphabet letters in the word Christmas to the total of the second half? Simplify your answer if possible.

Hope you enjoyed this little activity. Feel free to try it out over the dinner table at New Year – it might just be an amusing diversion.

You could, of course, replace “Happy New Year” with “New Year’s Eve”, “Ramadan” or “Diwali” and start all over again. Like recycling, the possibilities are endless...

A “Christmas” version of this resource is also available on skillsworkshop.org

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Answers

1. How many letters are there in **Happy New Year**? **12**
2. What do the fifth and the ninth letter have in common? **The same letter "y"**
3. Which letter or letters appear the most times? **a, p, y, e**
4. How many vowels are there? **4**
5. How many consonants are there in the word Christmas? **8**
6. Write down the ratio of consonants to vowels. **8:2 (simplifies to 4:1)**
7. Which pairs of numbers, when multiplied together, give the answer to Q1? **12&1, 3&4, 6&2.**
8. Write down the ratio of vowels to consonants. **2:8 (1:4)**
9. If you assign numerical values to each letter of the alphabet in the sequence a=1, b=2, c=3.....z=26, what is the total numerical value of **Happy New Year**?

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

$$8+1+16+16+25 +14+5+23 +25+5+1+18 = 66+42+49 = 157$$

10. Re-arrange the letters into alphabetical order. **A A E E H N P P R W Y Y**
11. How many letters belong to the first half of the alphabet and which ones are they?
5: A A E E H
12. How many letters belong to the second half of the alphabet and which ones are they?
7: N P P R W Y Y
13. By using the numerical values from Q9, calculate the sum of the letters in your answers to Q11 and Q12: First half: **20** Second half: **137**
14. Work out the total for the vowels and the total for the consonants:
Vowels: **12** Consonants: **145**
15. What is the numerical ratio of vowels to consonants? **12: 145**
16. Calculate the mean (numerical) value for **Happy New Year**. **$157 \div 12 = 13.08$**
17. What is the range of the letter values? **$25 (Y) - 1 (A) = 24$**
18. Which letter represents the "modal value"? There are 4 modes: **a, p, y, e – each appears twice.**
19. Which value and what letter represents the median of **Happy New Year**? **15 (O)**
20. What is the numerical ratio of the total for the first half of the alphabet letters in the word Christmas to the total of the second half? Simplify your answer if possible. **20:137**

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THANK YOU