

Place Value and Face Value

Unit: Number System & Notation - Student Practice Worksheet

Overview: The number 5,258 has the digit 5 written twice. Kabir said both 5s were 'worth the same' since they were the same digit. Anaya said one of them was worth exactly 1000 times more than the other.

Practice Questions (30 Total)

Section A - Easy

Q1. The place-value grid shows 5,258, with the first 5 highlighted. Using it, what is that digit's place value?

5	2	5	8
Thousands	Hundreds	Tens	Ones

- ☐ A. 5
- ☐ B. 5000
- ☐ C. 50
- ☐ D. 500

Q2. What does 'face value' mean?

- ☐ A. The digit multiplied by its column
- ☐ B. The digit itself, no matter where it sits
- ☐ C. Always equal to zero
- ☐ D. The largest digit in the number

Q3. In the number 3,462, what is the place value of the digit 4?

- ☐ A. 4
- ☐ B. 4000
- ☐ C. 400
- ☐ D. 40

Q4. The place-value grid shows 809, with the 8 highlighted. Using it, what is that digit's place value?

8	0	9
Hundreds	Tens	Ones

- ☐ A. 8
- ☐ B. 80
- ☐ C. 8000
- ☐ D. 800

Q5. What does 'place value' mean?

- ☐ A. The digit itself, ignoring position
- ☐ B. Always the same as face value
- ☐ C. The digit multiplied by the value of its column
- ☐ D. The number of digits in the number

Q6. What is the place value of 7 in the number 7,000?

- ☐ A. 7000
- ☐ B. 7
- ☐ C. 700
- ☐ D. 70

Q7. The place-value grid shows 5,258, with both 5s highlighted the same color. Using it, what does that tell you about their face values?

5	2	5	8
Thousands	Hundreds	Tens	Ones

- ☐ A. They are different, since the digits sit in different columns
- ☐ B. They are the same: both are 5

- ☐ C. Only the first 5 has a face value
- ☐ D. Face value cannot be found when a digit repeats

Q8. In the number 3,462, what is the face value of the digit 4?

- ☐ A. 400
- ☐ B. 40
- ☐ C. 4000
- ☐ D. 4

Q9. In the number 809, what is the face value of the digit 8?

- ☐ A. 8
- ☐ B. 800
- ☐ C. 80
- ☐ D. 8000

Q10. In the number 5,258, what is the place value of the second 5?

- ☐ A. 5000
- ☐ B. 50
- ☐ C. 500
- ☐ D. 5

Section B - Medium

Q11. The place-value grid shows 30,503, with the first 3 highlighted. Using it, what is that digit's place value?

3	0	5	0	3
Ten-Th.	Thousands	Hundreds	Tens	Ones

- ☐ A. 30,000
- ☐ B. 3
- ☐ C. 300
- ☐ D. 3,000

Q12. In the number 47,074, are the face values of both 7s the same?

- ☐ A. No, one is 7 and the other is 70
- ☐ B. Yes, both share face value 7
- ☐ C. No, one is 7000 and the other is 7
- ☐ D. Face value can't be found for repeats

Q13. In the number 30,503, what is the sum of the place values of both 3s?

- ☐ A. 30,006
- ☐ B. 33
- ☐ C. 30,003
- ☐ D. 3,003

Q14. The place-value grid shows 47,074, with the thousands-place 7 highlighted. Using it, what is that digit's place value?

4	7	0	7	4
Ten-Th.	Thousands	Hundreds	Tens	Ones

- ☐ A. 70
- ☐ B. 700
- ☐ C. 7
- ☐ D. 7,000

Q15. In 30,503, which digit has the greatest place value?

- ☐ A. The first 3 (30,000)
- ☐ B. The 5 (500)
- ☐ C. The second 3 (3)
- ☐ D. Both 0s equally

Q16. In the number 30,503, what is the place value of the second 3?

- ☐ A. 30
- ☐ B. 3
- ☐ C. 300

☐ D. 30,000

Q17. The place-value grid shows 47,074, with the tens-place 7 highlighted this time. Using it, what is that digit's place value?

4	7	0	7	4
Ten-Th.	Thousands	Hundreds	Tens	Ones

☐ A. 70

☐ B. 7,000

☐ C. 700

☐ D. 7

Q18. What is the place value of the digit 0 in the number 5,258?

☐ A. 0

☐ B. It equals 2's place value

☐ C. There is no 0 in this number

☐ D. It equals 8's place value

Q19. A number has the digit 9 in the hundred-thousands place. What is its place value?

☐ A. 90,000

☐ B. 9,000

☐ C. 9

☐ D. 900,000

Q20. How many times greater is the place value of the first 5 in 5,258 compared to the second 5?

☐ A. 10 times greater

☐ B. 100 times greater

☐ C. 1000 times greater

☐ D. Equal, no difference

Section C - Challenge

Q21. The place-value grid shows 6,066, with the three 6s highlighted. Using it, what is the sum of the place values of all three 6s?

6	0	6	6
Thousands	Hundreds	Tens	Ones

- ☐ A. 6,066
- ☐ B. 6,660
- ☐ C. 666
- ☐ D. 6,606

Q22. Kabir says the digit with the highest FACE value in a number always has the highest PLACE value too. Is this always true?

- ☐ A. No — a smaller digit in a bigger column can have a higher place value
- ☐ B. Yes, always true for every number
- ☐ C. True only for numbers under 1000
- ☐ D. True only if there are no repeated digits

Q23. In the number 808,080, how many digits have a face value of 8?

- ☐ A. 2
- ☐ B. 3
- ☐ C. 4
- ☐ D. 1

Q24. The place-value grid shows 808,080, with the three 8s highlighted. Using it, what is the sum of the place values of all three 8s?

8	0	8	0	8	0
Lakhs	Ten-Th.	Thousands	Hundreds	Tens	Ones

- ☐ A. 800,880
- ☐ B. 808,800

- ☐ C. 808,080
- ☐ D. 880,808

Q25. Which of these four statements about place value and face value is FALSE?

- ☐ A. A digit's place value depends on where it sits
- ☐ B. The face value of a digit is simply the digit itself
- ☐ C. A digit's face value changes depending on where it sits
- ☐ D. Place value equals the digit times its column's value

Q26. The digit 7 appears twice in a number: once in the thousands place, once in the ones place. What is the difference between these two place values?

- ☐ A. 7,000
- ☐ B. 6,993
- ☐ C. 6,999
- ☐ D. 7,007

Q27. The place-value grid shows 900,009, with both 9s highlighted. Using it, what is the difference between their two place values?

9	0	0	0	0	9
Lakhs	Ten-Th.	Thousands	Hundreds	Tens	Ones

- ☐ A. 900,000
- ☐ B. 899,982
- ☐ C. 899,901
- ☐ D. 899,991

Q28. A digit's place value is 40,000 and its face value is 4. Which column does it sit in?

- ☐ A. Thousands
- ☐ B. Hundred-thousands
- ☐ C. Hundreds
- ☐ D. Ten-thousands

Q29. A number has exactly one non-zero digit, 6, in the lakhs (hundred-thousands) place, with every other digit 0. What is the number, and what is 6's place value?

- ☐ **A.** The number is 600,000 and the place value of 6 is 600,000
- ☐ **B.** The number is 60,000 and the place value of 6 is 60,000
- ☐ **C.** The number is 600,000 and the place value of 6 is 6
- ☐ **D.** The number is 6,000,000 and the place value of 6 is 600,000

Q30. Why does Ms. Rao call face value and place value 'two completely different questions about the very same mark on the page'?

- ☐ **A.** Because face value and place value are always numerically equal
- ☐ **B.** Because one asks what digit is written, the other asks what it's worth by position — the digit itself never changes, but its worth does
- ☐ **C.** Because only one of the two concepts is ever real
- ☐ **D.** Because place value replaces the digit with a new one

Answer Key

Q1: (B) (b) 5000. The highlighted 5 sits in the thousands column of the grid, so $5 \times 1000 = 5000$.

Q2: (B) (b) The digit itself, no matter where it sits.

Q3: (C) (c) 400. The 4 sits in the hundreds place, so $4 \times 100 = 400$.

Q4: (D) (d) 800. The highlighted 8 sits in the hundreds column of the grid, so $8 \times 100 = 800$.

Q5: (C) (c) The digit multiplied by the value of its column.

Q6: (A) (a) 7000. The 7 sits in the thousands place, so $7 \times 1000 = 7000$.

Q7: (B) (b) They are the same: both are 5. The grid highlights both 5s the same color because face value never changes with position -- only place value does.

Q8: (D) (d) 4. Face value is always just the digit itself.

Q9: (A) (a) 8. Face value is always just the digit itself.

Q10: (B) (b) 50. The second 5 sits in the tens place, so $5 \times 10 = 50$.

Q11: (A) (a) 30,000. The highlighted 3 sits in the ten-thousands column of the grid, so $3 \times 10,000 = 30,000$.

Q12: (B) (b) Yes, both are 7. Face value never depends on position, so repeated digits always share the same face value.

Q13: (C) (c) 30,003. 30,000 plus 3 equals 30,003.

Q14: (D) (d) 7,000. The highlighted 7 sits in the thousands column of the grid, so $7 \times 1000 = 7,000$.

Q15: (A) (a) The first 3 (30,000). It sits in the ten-thousands place, the largest column in this number.

Q16: (B) (b) 3. It sits in the ones place, so $3 \times 1 = 3$.

Q17: (A) (a) 70. The highlighted 7 sits in the tens column of the grid, so $7 \times 10 = 70$ -- note it's a different column than the thousands-place 7 shown earlier.

Q18: (C) (c) There is no 0 in this number. 5,258 has digits 5, 2, 5, 8 only — no zero appears.

Q19: (D) (d) 900,000. $9 \times 100,000 = 900,000$.

Q20: (B) (b) 100 times greater. 5000 divided by 50 equals 100.

Q21: (A) (a) 6,066. The grid's three highlighted 6s sit in the thousands, tens, and ones columns: $6000 + 60 + 6 = 6,066$.

Q22: (A) (a) No — a smaller digit in a bigger column can have a higher place value. For example, in 30,503, the digit 5 has a bigger face value than 3, but the leading 3's place value (30,000) is far bigger than 5's (500).

Q23: (B) (b) 3. The digits are 8, 0, 8, 0, 8, 0 — three of them are 8.

Q24: (C) (c) 808,080. Every non-highlighted digit in the grid is 0, so the sum of the highlighted 8s' place values equals the whole number itself.

Q25: (C) (c) A digit's face value changes depending on where it sits. This is false — face value never changes with position; only place value does.

Q26: (B) (b) 6,993. The thousands-place 7 is worth 7000 and the ones-place 7 is worth 7, so 7000 minus 7 is 6,993.

Q27: (D) (d) 899,991. The grid's first 9 sits in the hundred-thousands column (900,000) and the second sits in the ones column (9), so 900,000 minus 9 is 899,991.

Q28: (D) (d) Ten-thousands. 40,000 divided by the face value 4 gives 10,000, the value of the ten-thousands column.

Q29: (A) (a) The number is 600,000 and the place value of 6 is 600,000. With every other digit zero, the whole number equals that one digit's place value exactly.

Q30: (B) (b) Because one asks what digit is written, the other asks what it's worth by position — the digit itself never changes, but its worth does. The written mark stays the same 5; its column decides whether that 5 is worth 5, 50, or 5000.

You've got this! Keep learning and shining! - Ruchi Math Coaching