



# Kungfu Math

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

## Challenge: P4 Whole Numbers Challenge

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### Written Instructions:

For each Multiple Choice Question (MCQ), four options are given. One of them is the correct answer. Make your choice (1,2,3 or 4). Write your answers in the brackets provided..

For each Short Answer Question(SAQ) and Long Answer Question(LAQ), write your answers in the blanks provided.

Leave your answers in the simplest form or correct to two decimal places.

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1) Which of the following has the same value as 9200?

- 1) 92 hundreds
- 2) 92 thousands
- 3) 92 tens
- 4) 92 ones

Answer: \_\_\_\_\_

2) The cost of a holiday trip for a family of five is \$14000 when rounded off to the nearest \$1000. Which of the following could the actual cost be?

- 1) \$13400
- 2) \$13499
- 3) \$15505
- 4) \$14499

(            )

3) What does  represent?

$$\text{★} + \text{☾} = 38$$

$$\text{★} - \text{☾} = 22$$

- 1) 29
- 2) 31
- 3) 30
- 4) 60

(       )

4) Janice has to pack 580 oranges into bags. The greatest number of oranges each bag can hold is 7.

What is the least number of bags Janice needs?

- 1) 33
- 2) 24
- 3) 43
- 4) 83

(       )

5) What number is 470 less than 8814?

- 1) 9284
- 2) 8344
- 3) 7874
- 4) 4172

6) Add 2696 to the 8th multiple of 2.

**Answer:**\_\_\_\_\_

7) Round off 37327 to the nearest hundred.

**Answer:**\_\_\_\_\_

8) What is the sum of the first and second common multiples of 7 and 2?

**Answer:**\_\_\_\_\_

9) The product of the page numbers on 2 consecutive pages is 48180.  
What is the smaller number?

**Answer:**\_\_\_\_\_

10)  $1 \times 10\,000 + 4 \times 1000 + 5 \times 100 + 8 \times 1 =$  \_\_\_\_\_

What is the missing number in the blank?

**Answer:**\_\_\_\_\_

11) Find the dividend if the quotient is 43, the divisor is 9 and the remainder is 4.

**Answer:**\_\_\_\_\_

12) Use the digits below to form the smallest 4-digit odd number.

5, 0, 3, 9

**Answer:**\_\_\_\_\_

13) Find the missing number in the following number pattern.

4347, \_\_\_\_\_, 4647, 4797

**Answer:**\_\_\_\_\_

14) For every 7 teddy bears Nat buys, she will get 4 dolls free.  
How many dolls will Nat get if she buy 42 teddy bears?

**Answer:** \_\_\_\_\_

15) Find the next two numbers in the following sequence.

4, 3, 12, 11, 44, \_\_\_\_\_,

**Answer:** \_\_\_\_\_

16) Jack and Siti have a total of 2402 guppies.

If Jack gives Siti 131 guppies, both of them will have an equal number of guppies.  
How many guppies did Jack have at first?

**Answer:** \_\_\_\_\_

17) Alice's age is a multiple of 5. Three years' later, her age will be a multiple of 8. If Alice is more than 20 years old and less than 50 years old, what is her youngest possible age in 4 years' time?

**Answer:** \_\_\_\_\_

18) Athena went shopping with thrice as much money as Aishah.

After Athena spent \$1152, Aishah had thrice as much money as Athena.

How much more money did Athena have than Aishah at first?

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**Answer:** \_\_\_\_\_

19) Alice bought a cap, a jersey and a T-shirt.  
The jersey costs \$4 more than the cap but \$9 less than the T-shirt.  
If he paid \$503, how much did the cap cost?

\$ \_\_\_\_

**Answer:** \_\_\_\_\_

20) A lecture theatre has 25 seats in each row. A group of 156 pupils occupied the first 9 rows of seats.  
How many seats in the first 9 rows were unoccupied by the pupils?

**Answer:** \_\_\_\_\_

1) Which of the following has the same value as 9200?

- 1) 92 thousands
- 2) 92 tens
- 3) 92 hundreds
- 4) 92 ones

Answer: 3

SOLUTION 1 :

$$9200 \div 100 = 92 \text{ hundreds}$$

2) The cost of a holiday trip for a family of five is \$14000 when rounded off to the nearest \$1000. Which of the following could the actual cost be?

- 1) \$13400
- 2) \$14499
- 3) \$13499
- 4) \$15505

Answer: 2

SOLUTION 1 :

Hint: In \$14499, the digit '4' is less than 5. Hence, we round down the number.

**\$14499** is \$14000 when rounded off to the nearest \$1000.

3) What does  represent?

$$\text{star} + \text{crescent} = 38$$

$$\text{star} - \text{crescent} = 22$$

- 1) 60
- 2) 31
- 3) 30

4) 29

Answer: 3

SOLUTION 1 :

Step 1:  $38 + 22 = 60$

Step 2:  $60 \div 2 = 30$

4) Janice has to pack 580 oranges into bags. The greatest number of oranges each bag can hold is 7.

What is the least number of bags Janice needs?

1) 24

2) 33

3) 43

4) 83

Answer: 4

SOLUTION 1 :

Step 1: Janice needs:  $580 \div 7 = 82 \text{ r } 6$

Step 2:  $82 + 1 = 83$

**83** is the least number of bags that Janice needs.

5) What number is 470 less than 8814?

1) 9284

2) 4172

3) 8344

4) 7874

Answer: 3

SOLUTION 1 :

$8814 - 470 = 8344$

The number is **8344**.



6) Add 2696 to the 8th multiple of 2.

Answer: 2712

SOLUTION 1 :

Step 1: 8th multiple of 2 = 16

Step 2:  $16 + 2696 = 2712$

7) Round off 37327 to the nearest hundred.

Answer: 37300

SOLUTION 1 :

27 is less than 50. Hence, we round down the number.

Answer: 37300

8) What is the sum of the first and second common multiples of 7 and 2?

Answer: 42

SOLUTION 1 :

Step 1: Common multiples of 7: 7, 14, 21, 28, 35, 42, 49, 56, 63

Step 2: Common multiples of 2: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32

Step 3: First and second common multiples of 7 and 2 = 14 and 28

Step 4:  $14 + 28 = 42$

The sum is **42**.

9) The product of the page numbers on 2 consecutive pages is 48180.

What is the smaller number?

Answer: 219

SOLUTION 1 :

Pages	Total No. Of pages	Correct/Wrong
76 x 77	5852	wrong(Number too small compared to 48180)
150 x 151	22650	wrong(Number too small need to choose bigger number)
198 x 199	39402	wrong(Number too small need to choose bigger number)
222 x 223	49506	wrong(Number too big, need to reduce)
220 x 221	48620	wrong(Number too big, need to reduce)
219 x 220	48180	correct(YAY! Give you a virtual star)

The smaller number is **219**.

10)  $1 \times 10\,000 + 4 \times 1000 + 5 \times 100 + 8 \times 1 = \underline{\hspace{2cm}}$

What is the missing number in the blank?

Answer: 14508

SOLUTION 1 :

Step 1:  $1 \times 10000 = 10000$

Step 2:  $4 \times 1000 = 4000$

Step 3:  $5 \times 100 = 500$

Step 4:  $8 \times 1 = 8$

Step 5:  $10000 + 4000 + 500 + 8 = 14508$

The missing number is **14508**.

11) Find the dividend if the quotient is 43, the divisor is 9 and the remainder is 4.

Answer: 391

SOLUTION 1 :

Step 1:  $43 \times 9 = 387$

Step 2:  $387 + 4 = 391$

The dividend is **391**.

12) Use the digits below to form the smallest 4-digit odd number.

5, 0, 3, 9

Answer: 3059

SOLUTION 1 :

Step 1: Arrange the digits from smallest to largest.

Step 2: Switch the smallest digit with the second smallest digit.

**3059**

13) Find the missing number in the following number pattern.

4347, \_\_\_\_\_, 4647, 4797

Answer: 4497

SOLUTION 1 :

Step 1:  $4797 - 4647 = 150$

Step 2:  $4647 - 150 = 4497$

The missing number is **4497**.

14) For every 7 teddy bears Nat buys, she will get 4 dolls free.  
How many dolls will Nat get if she buy 42 teddy bears?

Answer: 24

SOLUTION 1 :

Step 1: For every 7 bears, 4 dolls are given free

$$42 \div 7 \text{ bears} = 6 \text{ groups of bears}$$

Step 2:  $6 \times 4 = 24$  dolls

Nat will get **24** dolls.

15) Find the next two numbers in the following sequence.

4, 3, 12, 11, 44, Answer: 43, Answer: 172

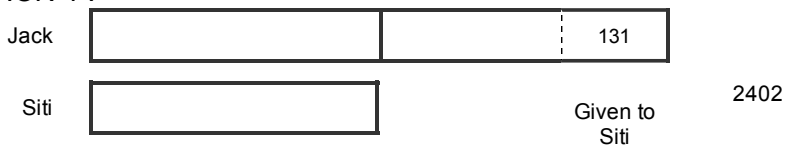
16) Jack and Siti have a total of 2402 guppies.

If Jack gives Siti 131 guppies, both of them will have an equal number of guppies.

How many guppies did Jack have at first?

Answer: 1332

SOLUTION 1 :



Step 1:  $131 \times 2 = 262$

Step 2:  $2402 - 262 = 2140$

Step 3:  $2140 \div 2 = 1070$

Step 4:  $1070 + 262 = 1332$

Jack have **1332** guppies at first.

17) Alice's age is a multiple of 5. Three years' later, her age will be a multiple of 8. If Alice is more than 20 years old and less than 50 years old, what is her youngest possible age in 4 years' time?

Answer: 49

SOLUTION 1 :

Step 1: Multiples of 5: 5, 10, 15, 20, 25, 30, 35, 40, 45

Step 2: Multiples of 8: 8, 16, 24, 32, 40, 48, 56, 64, 72

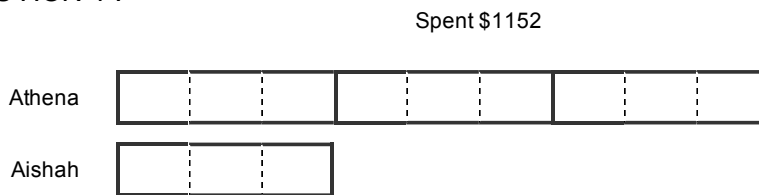
Step 3: Multiples of 8 minus 3 years: 5, 13, 21, 29, 37, 45, 53, 61

Step 4: In 4 years' time, her age will be:  $45 + 4 = 49$

18) Athena went shopping with thrice as much money as Aishah. After Athena spent \$1152, Aishah had thrice as much money as Athena. How much more money did Athena have than Aishah at first?

\$ Answer: 864

SOLUTION 1 :



Step 1: 8 units = \$1152

Step 2: 1 unit =  $\$1152 \div 8$

= \$144

Step 3: 6 units =  $6 \times \$144$

= \$864

Athena have **\$864** more than Aishah at first.

19) Alice bought a cap, a jersey and a T-shirt. The jersey costs \$4 more than the cap but \$9 less than the T-shirt. If he paid \$503, how much did the cap cost?

Answer: \$162

SOLUTION 1 :



Step 1:  $\$503 - \$4 - \$4 - \$9 = \$486$

Step 2:  $\$486 \div 3 = \$162$

The cap cost **\$162**.

20) A lecture theatre has 25 seats in each row. A group of 156 pupils occupied the first 9 rows of seats.  
How many seats in the first 9 rows were unoccupied by the pupils?

Answer: 69

SOLUTION 1 :

Step 1:  $25 \times 9 = 225$

Step 2:  $225 - 156 = 69$

**69** seats in the first 9 rows were unoccupied by the pupils.