QUESTIONS AND CONCLUSIONS

CONCLUSIONS 3-4

CONCLUSIONS

Q1: Let's break down the information:

- The digit in the ones place is 4. So, the last digit of the number is 4.
- The digit in the tens place is twice the digit in the ones place. Therefore, the tens digit is 2 times 4, which is 8.
- The sum of the digits is 18.

Now, we can find the hundreds digit by subtracting the sum of the ones and tens digits (4 + 8 = 12) from 18. So, the hundreds digit is 18 – 12 = 6.

Thus, the number is 684.

SOLUTION IS C

CONCLUSIONS

Q2: Let's break down the steps for counting forward in multiples of 6 and 8:

Counting forward in multiples of 6:

- First step: 62
- Second step: 62 + 6 = 68
- Third step: 68 + 6 = 74
- Fourth step: 74 + 6 = 80
- Fifth step: 80 + 6 = 86

Counting forward in multiples of 8:

- First step: 62
- Second step: 62 + 8 = 70
- Third step: 70 + 8 = 78
- Fourth step: 78 + 8 = 86
- Fifth step: 86 + 8 = 94

Now, let's find the difference between the two numbers:

94 (from multiples of 8) – 86 (from multiples of 6) = 8

SOLUTION IS C

CONCLUSIONS

Q3:

- The largest number that ends with an even digit is 874

  (since 8 is the largest digit, followed by 7, and then 4).
- The smallest number that ends with an even digit is 478

  (since 4 is the smallest even digit, followed by 7, and then 8).

Now, let's find the difference between the two numbers: 874 – 478 = 396

SOLUTION IS B

CONCLUSIONS

Q4: Oliver wants to increase his number of marbles to the largest three-digit number with 3 in the hundreds place. The largest three-digit number with 3 in the hundreds place is 399.

Currently, Oliver has 127 marbles.

So, 399 – 127 = 272

So, Oliver needs to buy 272 more marbles.

SOLUTION IS D

CONCLUSIONS

Q5:
- The triple of 12 is 36: Triple of 12 is $12 \times 3 = 36$. This statement is correct.
- Eight times 9 is 72: Eight times 9 is $8 \times 9 = 72$. This statement is correct.
- Six times 7 is 48: Six times 7 is $6 \times 7 = 42$. This statement is incorrect.
- Eighth times of 4 plus 5 is 27: $8 \times 4 + 5 = 32 + 5 = 37$ This statement is incorrect.
- The four times 25 is 100: $4 \times 25 = 100$ This statement is correct.

Thus, 3 statements are correct.

SOLUTION IS B

CONCLUSIONS

Q6:
- After using 13 meters, Lucas has 84 meters of wire left.
  - o Lucas starts with 97 meters and uses 13 meters.
  - o Remaining wire: 97 – 13 = 84.

  So, this statement is correct.
- When he divides the remaining wire into 7 equal parts, each piece is 14 meters long.
  - o He has 84 meters left.
  - o Dividing it into 7 equal pieces: 84 ÷ 7 = 12
  - o Each piece is 12 meters, not 14 meters.

  So, this statement is incorrect.

SOLUTION IS B

CONCLUSIONS

Q7: There are 10 glasses in total and only one of them is broken.

So, it is one out of 10 which is $\frac{1}{10}$

SOLUTION IS B

CONCLUSIONS

Q8:
- One day is 24 hours.
- One year is 52 weeks.
- One year is 12 months.
- One hour is 60minutes.

So, the correct numbers to place in the blanks in order are:

24, 52, 12, 60.

SOLUTION IS B

CONCLUSIONS

Q9: Let's determine the weight of one apple first:
- 4 apples weigh 360 grams.
- Weight of 1 apple = 360 ÷ 4 = 90 grams.

A) The weight of 3 apples is 300 grams.
(3 × 90 = 270, not 300)

B) The weight of one apple cannot be determined.
(We calculated it as 90 grams.)

C) The weight of one apple is less than 100 grams.
(90 < 100)

D) The weight of 5 apples is less than 400 grams.
(5 × 90 = 450, which is more than 400.)

Since we are looking for the correct statement, the best answer is : C

SOLUTION IS C

CONCLUSIONS

Q10: From 13:45 to 14 : 45 → 1 hour

From 14:45 to 15: 25 → 40 minutes

Total practice time = 1 hour 40 minutes

SOLUTION IS B

CONCLUSIONS

Q11: We are looking for equivalent fractions with $\frac{3}{4}$.

Since it is divided into 2 equal pieces, we can expand the fraction by 2. $\frac{3 \times 2}{4 \times 2} = \frac{6}{8}$

SOLUTION IS C

CONCLUSIONS

Q12: The length of pink line is 16 – 9cm = 7cm

The length of orange line is 15– 12 = 3 cm

Their difference is 7 – 3 = 4cm

Their sum is 7 + 3 = 10 cm

So option A is incorrect.

SOLUTION IS A

CONCLUSIONS

Q13:

- Kilometers (km) are used to measure long distances, such as the distance between cities, countries, or large geographical areas.
- Electric pole height → Measured in meters
- Fabric length → Measured in meters or centi-meters
- Classroom width → Measured in meters

SOLUTION IS C

CONCLUSIONS

Q14: Perimeter is the total length around a shape

To find it, you add up the lengths of all sides.

SOLUTION IS C

CONCLUSIONS

Q15: Perimeter = Side 1 + Side 2 + Missing Side

31 = 8 + 13 + Missing Side

31 – (8 + 13) = Missing Side

31 – 21 = 10 cm

SOLUTION IS A

CONCLUSIONS

Q16: 87046 = 8 x 10 000 + 7 x 1000 + 0 x 100 + 4x10 + 6 x 1

So, a = 0, b = 4, c = 7, d = 8, e = 6

(d – b) + (c – e) = (8 – 4) + (7 – 6) = 4 + 1 = 5

SOLUTION IS C

CONCLUSIONS

Q16: To round 1976 to the nearest hundred:

- The hundreds digit is 9 (since 1976 is between 1900 and 2000).
- The tens digit is 7, which is 5 or greater, so we round up.

Thus, 1976 rounded to the nearest hundred is 2000.

SOLUTION IS C

CONCLUSIONS

Q18: To recalculate the difference, when the minuend decreases by 143, the difference decreases by 143. Additionally, when the subtrahend increases by 50, the difference decreases by another 50.

2003 −143 − 50 and 2003 −193 =1810

SOLUTION IS C

CONCLUSIONS

Q19: Calculate the distance from Sophia's house to the school: 1784 + 314 = 2098 m

Find the distance between Emma's and Sophia's houses: 2098+1784 = 3882

SOLUTION IS D

CONCLUSIONS

Q20:
- Find the total amount of milk used:

  1660 + 932 = 2592 liters
- Subtract the total milk used from the available milk: 3047 − 2592 = 455 liters

SOLUTION IS B

CONCLUSIONS

Q21: To maximize the largest number, we should minimize the other two numbers. The smallest three-digit natural number is 100. Let's assume the first two numbers are 100 and 101 (since they must be different). To find the third number :

342 − (100 + 101) = 342 − 201 = 141

SOLUTION IS B

CONCLUSIONS

Q22: Find the Number of Fairy Tale Books:

204 + 123 = 327

Find the Number of Poetry Books:

327 − 198 = 129

Find the Total Number of Books:

204 + 327 + 129 = 660

SOLUTION IS C

CONCLUSIONS

Q23: Let's calculate each multiplication and determine how many results are five-digit numbers.
- 50 × 10 = 500

  (This is a three-digit number.)
- 130 × 100 = 13 000

  (This is a five-digit number.)
- 190 × 200 = 38 000

  (This is a five-digit number.)
- 16 × 400 = 6400

  (This is a four-digit number.)

Only two results (130 × 100 and 190 × 200) are five-digit numbers.

SOLUTION IS B

CONCLUSIONS

Q24:
- Multiply 106 by 3: 106 × 3 = 318
- Multiply 95 by 5: 95 × 5 = 475
- Add the two results: 318 + 475 = 793

SOLUTION IS D

CONCLUSIONS

Q25: Calculate the total wage for one worker in a month: 60 × 30 = 1800

Calculate the total wage for all 16 workers:

1800 × 16 = 28 800

SOLUTION IS D

CONCLUSIONS

Q26: Total payment = 4 x pairs of jeans + 2 x skirts + 4 x shirts

Total payment = 4 x 99 + 2 x 117 + 4 x 48

= 396 + 234 + 192 = 822 dolars in total

SOLUTION IS A

CONCLUSIONS

Q27: In a division operation, the formula is:

Dividend = (Divisor × Quotient) + Remainder

Given: Divisor = 14 and Quotient = 16

The maximum possible value of the dividend is when the remainder is the largest possible value. The remainder must be less than the divisor

(i.e., less than 14), and the maximum remainder is 13.

14 × 16 = 224

224 + 13 = 237

SOLUTION IS B

CONCLUSIONS

Q28:

- Dividend = Smallest three-digit number = 100
- Divisor = Smallest two-digit odd number = 11

  100 ÷ 11 = 9 remainder 1
- Quotient = 9
- Remainder = 1
- Sum of quotient and remainder

  = 9 + 1 = 109 + 1 = 109 +1 = 10

So, D) The sum of the quotient and the remainder is the smallest two-digit number.

(Correct, since 9 + 1 = 109 + 1 = 109 + 1 = 10.)

SOLUTION IS D

CONCLUSIONS

Q29:

- Original daily distance = 1203 = 40 km/day
- Remaining distance = 360 – 120 = 240 km
- New daily distance = 40 + 8 = 48 km/day
- Calculate the number of days to cover the remaining distance:
- Days = 240 ÷ 48 = 5 days

SOLUTION IS A

CONCLUSIONS

Q30: Since the dividend is 6 times the divisor, let's think of the total sum as parts.

- The divisor is one part.
- The dividend is six parts.
- So, in total, we have 7 equal parts that add up to 546.

546 ÷ 7 = 78 So, one part (the divisor) is 78.

SOLUTION IS A

CONCLUSIONS

Q31: Olivia's Comparison: $\frac{13}{20} < \frac{13}{A}$

Since the numerators are the same, for the fraction to be greater, A must be less than 22 (i.e., A < 22). Since A is a natural number and must be less than 22, the maximum value of is 21.

Noah's Comparison: $\frac{B}{22} < \frac{13}{20}$

Since the denominators are the same, for the fraction to be greater, B must be greater than 13 (i.e. , B > 13). Since B is a natural number and must be greater than 13, the minimum value of is 14.

Find $\frac{A}{B} = \frac{21}{14}$

SOLUTION IS B

CONCLUSIONS

Q32: **Step 1:** Find how many questions Ethan solved on Friday

Ethan solved $\frac{2}{9}$ of 144 questions: $\frac{1}{2} \times 144 = 32$

Step 2: Find how many questions Ethan on Saturday solved Ethan $\frac{1}{2}$ of 144 questions:

$\frac{1}{2} \times 144 = 72$

Step 3: Find how many questions were left for Sunday: 144 – (32 + 72) = 144 – 104 = 40

SOLUTION IS C

CONCLUSIONS

Q33: To find the latest date your sister can exchange the shoes, we add 15 days to August 21:

- Starting from August 21, adding 10 days brings us to August 31.
- Adding 5 more days brings us to September 5
- So, the latest date she can exchange the shoes is September 5.

SOLUTION IS B

CONCLUSIONS

Q34: To find the smallest angle that should be added to 43° to make a right angle (90°), we subtract: 90° – 43° = 47°

SOLUTION IS B

CONCLUSIONS

Q35: Since 1 ton = 1000 kg, the trader has:

10 × 1000 = 10 000 kg of onions

Each bag weighs 5 kg, and 738 bags were sold:

738 × 5 = 3690 kg

10 000 – 3690 = 6310 kg remains

SOLUTION IS C