1. What is the value of 25 + 17?
A) 32
B) 38
C) 42
D) 47
E) 52

2. Anna has 3 apples, and Ben has twice as many. How many apples do they have together?
A) 6
B) 7
C) 8
D) 9
E) 10

3. Which number is missing in the sequence: 2, 4, 6, _ _, 10?
A) 7
B) 8
C) 9
D) 10
E) 12

4. A rectangle has a length of 8 cm and a width of 3 cm. What is its perimeter?
A) 11 cm
B) 14 cm
C) 22 cm
D) 24 cm
E) 30 cm

5. If today is Wednesday, what day will it be in 10 days?
A) Tuesday
B) Wednesday
C) Thursday
D) Friday
E) Saturday

6. HOW MANY SQUARES ARE THERE IN THIS 2 × 3 GRID? (COUNT ALL SIZES OF SQUARES.)
A) 6
B) 8
C) 10
D) 12
E) 14

7. A BOOK COSTS $4, AND A PENCIL COSTS $1. HOW MUCH DO 2 BOOKS AND 3 PENCILS COST?
A) $8
B) $9
C) $10
D) $11
E) $12

8. WHAT IS THE NEXT NUMBER IN THE PATTERN: 1, 3, 6, 10, _ _?
A) 12
B) 14
C) 15
D) 16
E) 17

9. A CLOCK SHOWS 3:00. WHAT TIME WILL IT SHOW IN 2 HOURS AND 45 MINUTES?
A) 5:15
B) 5:45
C) 6:00
D) 6:15
E) 6:45

10. IF 5 CANDIES COST 20 CENTS, HOW MUCH DO 10 CANDIES COST?
A) 30 CENTS
B) 35 CENTS
C) 40 CENTS
D) 45 CENTS
E) 50 CENTS

11. WHICH OF THESE NUMBERS IS DIVISIBLE BY 3?

A) 14

B) 17

C) 19

D) 21

E) 23

12. A SQUARE HAS A PERIMETER OF 16 CM. WHAT IS THE LENGTH OF ONE SIDE?

A) 2 CM

B) 4 CM

C) 6 CM

D) 8 CM

E) 10 CM

13. TOM HAS 15 MARBLES. HE GIVES 1/3 OF THEM TO HIS FRIEND. HOW MANY MARBLES DOES TOM HAVE LEFT?

A) 5

B) 8

C) 10

D) 12

E) 15

14. HOW MANY TRIANGLES ARE IN THIS FIGURE? (IMAGINE A LARGE TRIANGLE SPLIT INTO 4 SMALLER TRIANGLES BY LINES FROM THE TOP TO THE BASE.)

A) 3

B) 4

C) 5

D) 6

E) 7

15. A NUMBER IS MULTIPLIED BY 4, AND THEN 6 IS ADDED. THE RESULT IS 22. WHAT IS THE NUMBER?

A) 2

B) 3

C) 4

D) 5

E) 6

ANSWERS WITH EXPLANATIONS

1. C) 42, EXPLANATION: ADD 25 AND 17: 25 + 10 = 35, 35 + 7 = 42.

2. D) 9, EXPLANATION: ANNA HAS 3 APPLES. BEN HAS TWICE AS MANY, SO 2 × 3 = 6. TOGETHER: 3 + 6 = 9.

3. B) 8, EXPLANATION: THE SEQUENCE INCREASES BY 2 EACH TIME: 2 + 2 = 4, 4 + 2 = 6, 6 + 2 = 8, 8 + 2 = 10.

4. C) 22 CM, EXPLANATION: PERIMETER OF A RECTANGLE = 2 × (LENGTH + WIDTH) = 2 × (8 + 3) = 2 × 11 = 22 CM.

5. D) FRIDAY, EXPLANATION: 10 DAYS FROM WEDNESDAY: 7 DAYS IS A FULL WEEK (BACK TO WEDNESDAY), PLUS 3 MORE DAYS = THURSDAY, FRIDAY, SATURDAY. SO, IT'S FRIDAY.

6. D) 12, EXPLANATION: A 2 × 3 GRID HAS 6 SINGLE SQUARES (1 × 1), 4 SQUARES OF SIZE 2 × 1 OR 1 × 2, AND 2 SQUARES OF SIZE 2 × 2. TOTAL = 6 + 4 + 2 = 12.

7. D) $11, EXPLANATION: 2 BOOKS = 2 × $4 = $8, 3 PENCILS = 3 × $1 = $3. TOTAL = $8 + $3 = $11.

8. C) 15, EXPLANATION: THIS IS THE TRIANGULAR NUMBER PATTERN: 1, 1+2=3, 1+2+3=6, 1+2+3+4=10, 1+2+3+4+5=15.

9. B) 5:45, EXPLANATION: FROM 3:00, ADD 2 HOURS = 5:00, THEN ADD 45 MINUTES = 5:45.

10. C) 40 CENTS, EXPLANATION: 5 CANDIES COST 20 CENTS, SO 1 CANDY COSTS 20 ÷ 5 = 4 CENTS. 10 CANDIES = 10 × 4 = 40 CENTS.

11. D) 21, EXPLANATION: A NUMBER IS DIVISIBLE BY 3 IF THE SUM OF ITS DIGITS IS DIVISIBLE BY 3. FOR 21: 2 + 1 = 3, WHICH IS DIVISIBLE BY 3.

12. B) 4 CM, EXPLANATION: PERIMETER OF A SQUARE = 4 × SIDE LENGTH. SO, 16 ÷ 4 = 4 CM.

13. C) 10, EXPLANATION: 1/3 OF 15 = 15 ÷ 3 = 5 MARBLES GIVEN AWAY. TOM HAS 15 − 5 = 10 LEFT.

14. C) 5, EXPLANATION: A LARGE TRIANGLE SPLIT INTO 4 SMALLER TRIANGLES HAS THE 4 SMALL ONES PLUS THE LARGE ONE ITSELF, TOTALING 5 TRIANGLES.

15. C) 4, EXPLANATION: LET THE NUMBER BE X. THEN, 4X + 6 = 22. SUBTRACT 6: 4X = 16. DIVIDE BY 4: X = 4.