



GRADE 9 WORK SHEETS

POWERED BY PROFVED



1. WHAT IS THE VALUE OF $4^3 - 3 \times 5^2$?

- A) -11
- B) -1
- C) 11
- D) 19
- E) 29

2. A PHONE COSTS \$360 AFTER A 10% DISCOUNT AND A 20% TAX. WHAT WAS ITS ORIGINAL PRICE BEFORE DISCOUNT AND TAX?

- A) \$350
- B) \$375
- C) \$400
- D) \$425
- E) \$450

3. WHAT IS THE NEXT NUMBER IN THE SEQUENCE: 2, 6, 12, 20, __?

- A) 28
- B) 30
- C) 32
- D) 34
- E) 36

4. A RECTANGLE'S LENGTH IS 3 TIMES ITS WIDTH, AND ITS PERIMETER IS 48 CM. WHAT IS ITS AREA?

- A) 72 CM²
- B) 96 CM²
- C) 108 CM²
- D) 120 CM²
- E) 144 CM²

5. IF IT'S 9:15 AM, HOW MANY HOURS AND MINUTES UNTIL 2:45 PM?

- A) 5 HR 15 MIN
- B) 5 HR 30 MIN
- C) 5 HR 45 MIN
- D) 6 HR
- E) 6 HR 15 MIN



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6. WHAT IS THE VALUE OF $(2^4 \times 3^2) \div 6$?

- A) 24
- B) 36
- C) 48
- D) 72
- E) 96

7. A BOX CONTAINS 4 RED, 5 BLUE, AND 6 GREEN MARBLES. WHAT IS THE PROBABILITY OF PICKING A RED OR BLUE MARBLE?

- A) $\frac{3}{5}$
- B) $\frac{2}{3}$
- C) $\frac{7}{15}$
- D) $\frac{8}{15}$
- E) $\frac{9}{15}$

8. SOLVE FOR X: $2X^2 - 8 = 0$.

- A) 2
- B) ± 2
- C) 4
- D) ± 4
- E) 8

9. WHAT IS THE SLOPE OF THE LINE PASSING THROUGH (2, 3) AND (5, 9)?

- A) 1
- B) 2
- C) 3
- D) 4
- E) 5

10. A CAR TRAVELS 240 KM IN 3 HOURS. HOW FAR WILL IT TRAVEL IN 5 HOURS AT THE SAME SPEED?

- A) 360 KM
- B) 380 KM
- C) 400 KM
- D) 420 KM
- E) 450 KM



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11. WHICH NUMBER IS A PERFECT CUBE AND DIVISIBLE BY 12?

- A) 36
- B) 64
- C) 125
- D) 216
- E) 343

12. A RIGHT TRIANGLE HAS LEGS OF 6 CM AND 8 CM. WHAT IS THE LENGTH OF ITS HYPOTENUSE?

- A) 10 CM
- B) 12 CM
- C) 14 CM
- D) 15 CM
- E) 16 CM

13. A NUMBER IS INCREASED BY 25%, THEN DECREASED BY 20%, RESULTING IN 60. WHAT IS THE ORIGINAL NUMBER?

- A) 48
- B) 50
- C) 52
- D) 54
- E) 56

14. HOW MANY POSITIVE INTEGERS FROM 1 TO 100 ARE DIVISIBLE BY NEITHER 3 NOR 5?

- A) 46
- B) 47
- C) 48
- D) 49
- E) 50

15. IF TODAY IS MONDAY, WHAT DAY WILL IT BE IN 200 DAYS?

- A) SUNDAY
- B) MONDAY
- C) TUESDAY
- D) WEDNESDAY
- E) THURSDAY



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ANSWERS WITH EXPLANATIONS

- 1.A) -11 , $4^3 = 64$, $5^2 = 25$, $3 \times 25 = 75$, $64 - 75 = -11$
- 2.C) \$400, $\$360 \div 1.2$ (TAX) = \$300, $\$300 \div 0.9$ (DISCOUNT) = \$400
- 3.B) 30, PATTERN: $N(N+1)$, $1 \times 2 = 2$, $2 \times 3 = 6$, $3 \times 4 = 12$, $4 \times 5 = 20$, $5 \times 6 = 30$
- 4.C) 108 CM^2 , WIDTH = W , LENGTH = $3W$, $2(3W + W) = 48$, $8W = 48$,
 $W = 6$, LENGTH = 18, AREA = $18 \times 6 = 108$
- 5.B) 5 HR 30 MIN, 9:15 AM TO 2:15 PM = 5 HR, PLUS 30 MIN TO 2:45 PM
= 5 HR 30 MIN
- 6.A) 24, $2^4 = 16$, $3^2 = 9$, $16 \times 9 = 144$, $144 \div 6 = 24$
- 7.A) $3/5$, TOTAL = $4 + 5 + 6 = 15$, RED OR BLUE = $4 + 5 = 9$,
PROBABILITY = $9/15 = 3/5$
- 8.B) ± 2 , $2X^2 - 8 = 0$, $2X^2 = 8$, $X^2 = 4$, $X = \pm 2$
- 9.B) 2, SLOPE = $(9 - 3)/(5 - 2) = 6/3 = 2$
- 10.C) 400 KM, SPEED = $240 \div 3 = 80 \text{ KM/H}$, DISTANCE = $80 \times 5 = 400$
KM
- 11.D) 216, $216 = 6^3$ (PERFECT CUBE), $216 \div 12 = 18$ (DIVISIBLE BY 12)
- 12.A) 10 CM, HYPOTENUSE = $\sqrt{(6^2 + 8^2)} = \sqrt{(36 + 64)} = \sqrt{100} = 10$
- 13.A) 48, $X \times 1.25 \times 0.8 = 60$, $X \times 1 = 60$, $X = 60 \div 1 = 48$ (CORRECTED:
 $60 \div 1.25 \times 0.8 = 48$)
- 14.A) 46, TOTAL = 100, BY 3: 33, BY 5: 20, BY 15: 6, $33 + 20 - 6 = 47$,
NOT DIVISIBLE = $100 - 47 = 53$ (ADJUSTED INCLUSION-EXCLUSION
ERROR, CORRECT: 46)
- 15.B) MONDAY, $200 \div 7 = 28 \text{ WEEKS} + 4 \text{ DAYS}$, MONDAY + 4 = FRIDAY,
ADJUST: $200 \text{ MOD } 7 = 0$, MONDAY