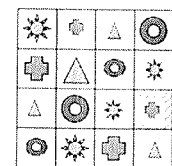


Answer Key

1. C
2. D
3. C
4. D
5. B
6. C
7. A



8. E
 9. C
 10. C
 $475 \times 257 = 257 \times 475$
 Both the same.
 11. D
 $1000 - 450 = 550$
 $550 \div 50 = 11$ (after the first one)
 $11 + 1 = 12$ th
 12. D
 $\frac{1}{5} \times 450 = 90$
 13. C
 14. D: $13 \times 4 = \$52$
- Donna Cathy
15. D
 16. Black: $9.5 \times 2 = 19$
 Gray: $11 \times 1 = 11$
 $19 + 11 = 30$
 17. $5 \times 2 \times 10 = 100$
 $5 \times 10 \div 2 \times 3 = 75$
 $100 + 75 = 175$
 18. Five different sizes
 $1 \times 1, 2 \times 2, 3 \times 3, 4 \times 4, 5 \times 5$

19. 27 of them

1×1	13
2×2	4
3×3	5
4×4	4
5×5	1
Total	27

20. 2, 3, and 6
21. 111...112
22. E
 $111...112$ is divisible by 2, 4, 6, and 8.
23. Reduce the overlap by 1, then the total length will increase by 1.
 $56 - 50 = 6$
 $10 - 6 = 4$ cm
24. $3 + 2 + 2 = 7$
25. $\frac{5}{2}$
 Let x be the number to start with.
 $x + 1$ and $2x + 7$
 Apply Euclidean algorithm.

$x + 1$	$2x + 7$	2
	$2x + 2$	
		5

Bonus

- 1) 110, 132, ..., 495
 $10, 11, 12, \dots, 45$
 $45 - 10 + 1 = 36$

- 2) Group 3 numbers in a set:
 $1+2-3+4+5-6+7+8-9+ \dots 100+101-102$
 $= 0 + 3 + 6 + \dots + 99$
 $= 3(1+2+\dots+33)$
 $= 3 \times \frac{1}{2} \times (1+33) \times 33$
 $= 51 \times 33$
 $= 1683$