

## Algebra I Individual

1. E
2. D
3. C
4. C
5. A
6. C
7. A
8. B
9. B
10. B
11. B
12. A
13. A
14. D
15. B
16. E
17. B
18. C
19. C
20. D
21. E
22. D
23. C
24. D
25. B
26. B
27. C
28. A
29. C
30. A

## Algebra I Team

1. 8
2. 81
3. 808
4.  $(x - 2)(x + 2)(x - y)$
5. 100
6.  $\frac{1}{256}$
7.  $\frac{243}{121}$
8. 448
9. 8
10. 75
11. 1296
12.  $x = \frac{2p - 2vR}{R^2}$
13. 15
14. \$615.57
15. perfect

3

$$A = 124$$
$$B = 1860$$

$$\frac{B}{A} = \frac{1860}{124} = 15$$

14)

$$\text{Regular price} = 800$$
$$\text{Sale price} = (.85)(800) = 680$$
$$\text{Liquidation price} = (.85)(680) = 578$$
$$\text{Tax on } \$578 = (578)(.065) = 37.57$$
$$\text{Total paid} = 578 + 37.57 = \$615.57$$

15)

Note :

$$1+2+3 = 6 \Rightarrow \text{equals } 6$$
$$1+2+4 = 7 \Rightarrow \text{less than } 8$$
$$1+2+3+4+6 = 16 \Rightarrow \text{more than } 12$$

$$496 : 1+2+4+8+16+31+62+124+248 = 496$$

so it is perfect