

Powers. Review 5

- $1. -(-5)^3$
 -5
- $2. 6^5 = 7776$
- $3. (-6)^6 \quad +$
 $- (+6)^6 \quad -$
 $- (-6)^6 \quad -$
- $4. (-13)^0 = 1$
- $5. (3 \times 10^4) + (5 \times 10^3) + (7 \times 10^2) + (4 \times 10^1) + (6 \times 10^0)$
 35746

$$- (-6)^6 \quad -$$

$$4. (-13)^0 = 1$$

$$5. (3 \times 10^4) + (5 \times 10^3) + (7 \times 10^2) + (4 \times 10^1) + (6 \times 10^0)$$
$$35746$$

$$6. (5 \times 10^3) + (6 \times 10^2) + (4 \times 10^1) + (7 \times 10^0) = 5647$$
$$5645$$

$$(5 \times 10^3) + (7 \times 10^2) + (8 \times 10^0) = 5708$$

$$\star 5780$$

$$7. \quad 5^3 \times 5^4$$

$$5^7$$

$$8. \quad [(-4) \times (-5)]^3$$

$$(-4)^3 \times (-5)^3$$

$$9. \quad \left(\frac{11}{9}\right)^5 = \frac{11^5}{9^5}$$

$$10. \quad [(-7) \times 3]^4$$

$$(-7)^4 \times 3^4$$

$$11. \quad \left(\frac{7}{3}\right)^3 = \frac{7^3}{3^3}$$

$$(-7)^1 \times 3^4$$

$$11. \left(\frac{7}{3}\right)^3 = \frac{7^3}{3^3}$$

$$12. \left[(-5)^0\right]^3$$

$$(-5)^0$$

$$1$$

$$13. (2^4 \times 2^2)^2$$

$$(2^6)^2$$

$$2^{12}$$

Find the product

14. $(-5)^6$ Base = -5
exponent 6

15. $-(-4) \times (-4) \times (-4) \times (-4) \times (-4)$
 $-(-4)^5$
 $-(-1024)$
1024

16. 4865
 $(4 \times 10^3) + (8 \times 10^2) + (6 \times 10^1) + (5 \times 10^0)$

$$17. (-4)^2 + 3 \times 7$$

exponents first

$$18. (6)^0 + [10 \div (-2)]^2 - 2$$

brackets first

$$19. 70 \times 2^2 + 80 \times 3^2 \times 0.75$$

$$70 \times 4 + 80 \times 9 \times 0.75$$

$$280 + 540$$

$$820$$

22. Write the product of $(-6)^6 \times (-6)^7$ as a single power.

luat

-52

uate

luat

+2'

$$\begin{array}{l} 20. \quad (5+3)^2 \times 4 + 5 \\ \quad \quad 8^2 \times 4 + 5 \\ \quad \quad 64 \times 4 + 5 \\ \quad \quad 256 + 5 \\ \quad \quad 261 \end{array}$$

$$\begin{array}{l} 21. \quad 7^6 \times 7^7 \\ \quad \quad 7^{13} \end{array}$$

$$\begin{array}{l} 22. \quad (-6)^6 \times (-6)^7 \\ \quad \quad (-6)^{13} \end{array}$$

$$\begin{array}{l} 23. \quad \frac{(-7)^9}{(-7)^5} \\ \quad \quad (-7)^4 \end{array}$$

21. 7^{13}

22. $(-6)^6 \times (-6)^7$
 $(-6)^{13}$

23. $\frac{(-7)^9}{(-7)^5}$
 $(-7)^4$

24. $3^3 \times 3^4 - 3^5 \times 3$
 $3^7 - 3^6$
 $2187 - 729$
 1458

$$\begin{aligned} 25. \quad & (-2)^4 \times (-2)^6 \div (-2)^6 \\ & (-2)^{10} \div (-2)^6 \\ & (-2)^4 \\ & = 16 \end{aligned}$$

$$26. \quad \frac{(-2)^6 \times (-2)^2}{(-2)^3 \times (-2)^0}$$

$$\frac{(-2)^8}{(-2)^3}$$

$$(-2)^5$$

$$-32$$

$$27. \quad 5^2 + 6^3 + 5^2 + 6^3 + 5^2 + 6^3$$

$$25 + 216 + 25 + 216 + 25 + 216$$

$$723$$

$$\frac{(-2)}{(-2)^3}$$

$$(-2)^5$$

$$-32$$

$$27. \quad 5^2 + 6^3 + 5^2 + 6^3 + 5^2 + 6^3$$

$$25 + 216 + 25 + 216 + 25 + 216$$

$$723$$

28.

$$\frac{(2^4)^3 \times (2^2)^4}{(2^4 \times 2^4)^2}$$

$$\frac{2^{12} \times 2^8}{(2^8)^2}$$

$$\frac{2^{12} \times 2^8}{2^{16}} = \frac{2^{20}}{2^{16}} = 2^4 = 16$$

$$\begin{aligned} 29. & (4^6 \div 4^3)^2 - (2^8 \div 2^6)^2 \\ & (4^3)^2 - (2^2)^2 \\ & 4^6 - 2^4 \\ & 4096 - 16 \\ & 4080 \end{aligned}$$

$$\begin{aligned} 30. & [(-2)^4 \times (-2)^3] - [(-3)^4 \div (-3)^3] \\ & (-2)^7 - (-3)^1 \\ & -128 - -3 \\ & -125 \end{aligned}$$

30. $[-(-2)^4 \times (-2)^3] - [(-3)^4 \div (-3)^3]$
 $(-2)^7 - (-3)^1$
 $-128 - -3$
 -125

31. $\frac{[-(-14)^9]^7}{[-(-14)^4]^3}$
 $\frac{(-14)^{63}}{(-14)^{12}}$
 $(-14)^{51}$

32. $2^4 \times 3^3 \times 5^2$
 $16 \times 27 \times 25$
~~10800~~
 10800

22. Write the product of $(-3)^4 + (-3)^3$

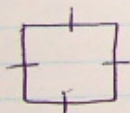
$$33. \quad (-7)^5 + (-5)^4 - (6)^2$$

$$16807 + 625 - 36$$

$$17432 - 36$$

$$\cancel{17432} \\ 17396$$

34.



$$A = 250\,000$$

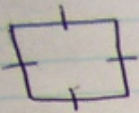
$$\text{---} \times \text{---} = 250\,000$$

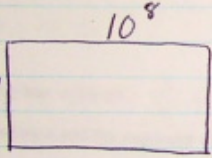
$$500 \times 500$$

$$5 \times 10^2 \times 5 \times 10^2$$

$$10^8$$

~~16146~~
17396

34.  $A = 250\,000$
 $_ \times _ = 250\,000$
 500×500
 $5 \times 10^2 \times 5 \times 10^2$

35.  $Area = L \times W$
 $= 10^6 \times 10^8$
 $= 10^{14}$

Perimeter = $s + s + s + s$
 $= 10^8 + 10^6 + 10^8 + 10^6$