

66-70-A
59-65-B
51-58-C
45-50-D
44↓-F

70*.84	65.1
70*.72	58.8
70*.64	50.4
■	44.8

What is the Volume of the sphere in terms of a ?

Leave π as a variable. Do not change it to 3.14!



$$V = \frac{4}{3} \pi (3a)^2$$

$$V = \frac{4}{3} \pi 3^2 a^2$$

$$V = \frac{\cancel{4}}{\cancel{3}} \pi \cancel{9} a^2$$

$$\underline{\underline{V = 12 \pi a^2}}$$

7. $(2mn)^6 =$

$2^6 m^6 n^6$

$64m^6n^6$

$$24. \frac{\cancel{3}6a^8b^2 \cdot \cancel{ab^2}}{\cancel{ab} \cdot \cancel{6}} = \underline{\underline{6a^8b^3}}$$

$$25. \frac{6x^2y^2}{xy^3} \cdot \frac{(4x^2y)^2}{xy^2} =$$

$$\frac{\cancel{6}x^{\cancel{2}}y^{\cancel{2}}}{\cancel{x}y^{\cancel{3}}} \cdot \frac{\cancel{4}(\cancel{x}^2)^2x^4}{\cancel{x}y^{\cancel{2}}}$$

$$= \frac{96x^4}{\cancel{\cancel{y}}}$$

9. $2x^3 \cdot (-3x)^2 =$

$2x^3 \cdot (-3)^2 x^2$
 $2x^3 \cdot 9x^2$
 $18x^5$

12. $4^{-2} = \frac{1}{4^2} = \frac{1}{16}$

16. $x^{-2}y^4 = \frac{y^4}{x^2}$

$$26. \frac{4xy}{2x^{-1}y^{-3}} \cdot \left(\frac{2xy^2}{3xy} \right)^{-2} =$$

$$= \frac{4xyx^1y^3}{2} \cdot \frac{(2xy^2)^2}{(3xy)^{-2}}$$

$$= \frac{4xyx^1y^3}{2} \cdot \frac{(3xy)^2}{(2xy^2)^2}$$

$$= \frac{4xyx^1y^3}{2} \cdot \frac{9x^2y^2}{2^2x^2y^4}$$

$$= \frac{9x^2y^2}{2}$$

$$20. \frac{x^3}{1} \cdot \frac{1}{x^2} = \frac{x^3}{x^2}$$
$$= x^{3-2} = \underline{\underline{x}}$$

$$20. \frac{x^3}{1} \cdot \frac{1}{x^2} = \underline{\underline{X}}$$

$$21. \left(\frac{-2}{3} \right)^3 = \frac{(-2)^3}{3^3}$$
$$= \frac{-8}{27}$$

$$19. \frac{x^7 \cdot x}{x^2} = \frac{x^8}{x^2} = x^{8-2} = \underline{\underline{x^6}}$$

19. $\frac{x^7 \cdot x}{x^2} = \underline{\underline{x^6}}$

$$23. \frac{\cancel{2} 4x^3 y^3}{\cancel{2} xy} \cdot \frac{5\cancel{xy}}{\cancel{2} y} = \frac{5x^3 y^3}{\underline{\underline{\quad}}}$$