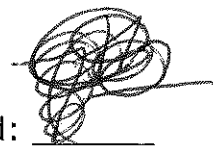



$(x^4)(x^3) = x^9$ Key 

Multiplying Monomials Day 2

Notes

Power to a Power
 $(x^9)^2 = x^{9 \cdot 2} = x^{18}$

Simplify each expression.

<p>1. $(x^5)^3$ $x^5 \cdot x^5 \cdot x^5$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> x^{15} </div>	<p>2. $(k^5)^2$ $k^5 \cdot k^5$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> k^{10} </div>
<p>3. $(3m^6)^3$ $(3)^3 \cdot (m^6)^3$ $(m^6)(m^6)(m^6)$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $27m^{18}$ </div>	<p>4. $(4x^7)^2$ $(4x^7)(4x^7)$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $16x^{14}$ </div>
<p>5. $(8x^5)^2$ $(8x^5)(8x^5)$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $64x^{10}$ </div>	<p>6. $(a^2b^2)^5$ $(a^2b^2)(a^2b^2)(a^2b^2)(a^2b^2)(a^2b^2)$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $a^{10}b^{10}$ </div>
<p>7. $(4a^3b^3c)^2$ $(4a^3b^3c)(4a^3b^3c)$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $16a^6b^6c^2$ </div>	<p>8. $(3a^3b^2c^4)^2$ $(3a^3b^2c^4)(3a^3b^2c^4)$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $9a^6b^4c^8$ </div>
<p>9. Find the volume of a cube if a side is $3a^3b^4$.</p> <p>$V = s^3$ $s \quad V = (3a^3b^4)^3$ $s \quad V = 27a^9b^{12}$</p> <div style="text-align: center; margin-top: 10px;">  </div>	<p>10. Find the volume of a cube if the length is $4x^4y^6$.</p> <p>$V = s^3$ $V = (4x^4y^6)^3$ $V = 64x^{12}y^{18}$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $V = 64x^{12}y^{18}$ </div>