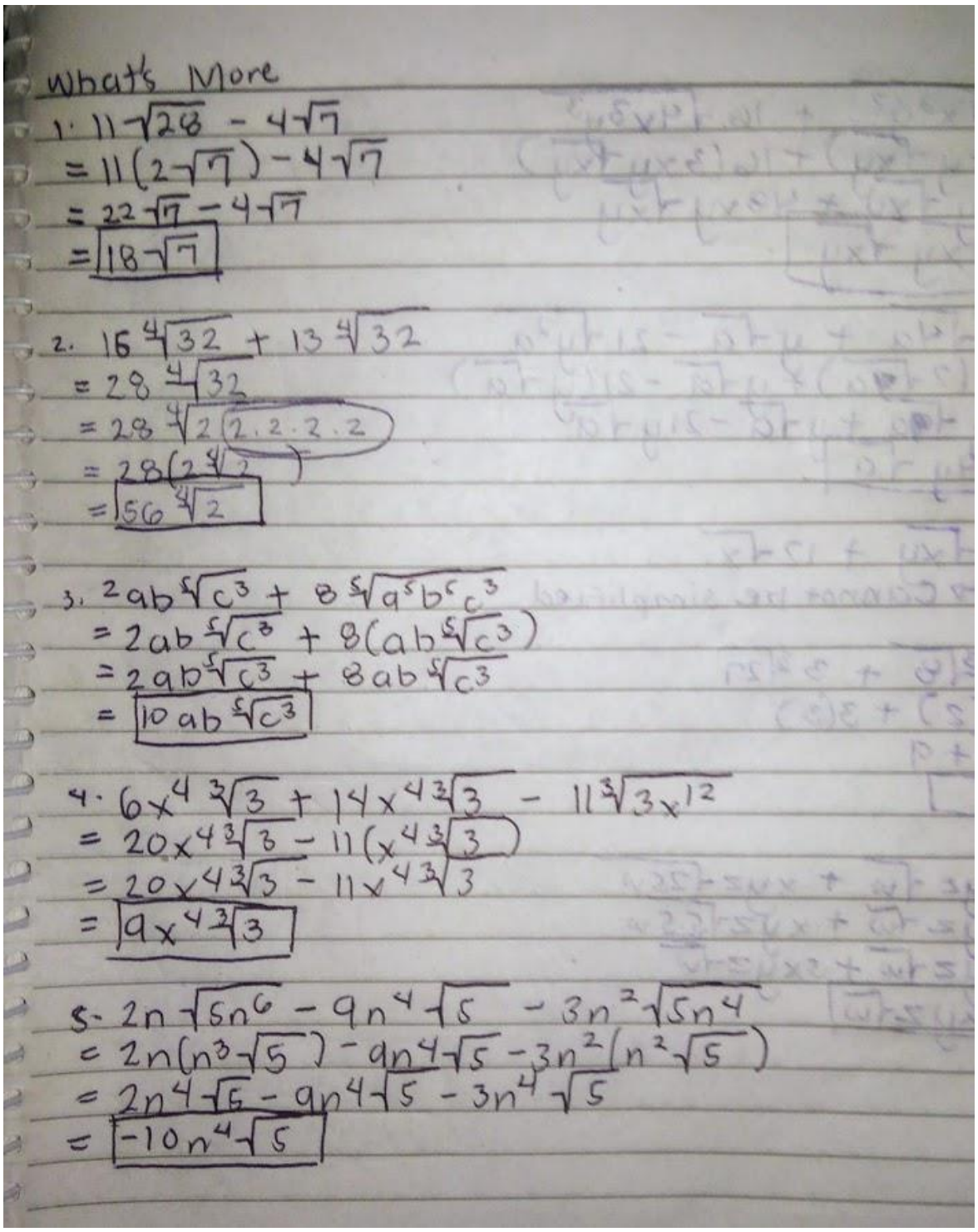
Angeles City Science High School

Mathematics 9

Name: Paul Gerald D. Pare **Section:** 9 - Adenine



6. $8\sqrt{x^3y^3} + 16\sqrt{9x^3y^3}$

$= 8(xy\sqrt{xy}) + 16(3xy\sqrt{xy})$

$= 8xy\sqrt{xy} + 48xy\sqrt{xy}$

$= \boxed{56xy\sqrt{xy}}$

7. $3y\sqrt{4a} + y\sqrt{a} - 21\sqrt{y^2a}$

$= 3y(2\sqrt{a}) + y\sqrt{a} - 21(y\sqrt{a})$

$= 6y\sqrt{a} + y\sqrt{a} - 21y\sqrt{a}$

$= \boxed{-14y\sqrt{a}}$

8. $5\sqrt{xy} + 12\sqrt{x}$

↳ Cannot be simplified

9. $2\sqrt[3]{8} + 3\sqrt[3]{27}$

$= 2(2) + 3(3)$

$= 4 + 9$

$= \boxed{13}$

10. $xyz\sqrt{w} + xyz\sqrt{25w}$

$= xyz\sqrt{w} + xyz\sqrt{5 \cdot 5}w$

$= xyz\sqrt{w} + 5xyz\sqrt{w}$

$= \boxed{6xyz\sqrt{w}}$

Assessment

1. $2\sqrt{64} + 6\sqrt{81} - 8\sqrt{25}$

$= 2\sqrt{8 \cdot 8} + 6\sqrt{9 \cdot 9} - 8\sqrt{5 \cdot 5}$

$= 2(8) + 6(9) - 8(5)$

$= 16 + 54 - 40$

$= \boxed{30}$

2. $5\sqrt{200} + 2\sqrt{50} - 4\sqrt{8}$

$= 5\sqrt{2 \cdot 2 \cdot 2 \cdot 5 \cdot 5} + 2\sqrt{5 \cdot 5 \cdot 2} - 4\sqrt{2 \cdot 2 \cdot 2}$

$= 5(5 \cdot 2\sqrt{2}) + 2(5\sqrt{2}) - 4(2\sqrt{2})$

$= 5(10\sqrt{2}) + 2(5\sqrt{2}) - 4(2\sqrt{2})$

$= 50\sqrt{2} + 10\sqrt{2} - 8\sqrt{2}$

$= \boxed{52\sqrt{2}}$

3. $4\sqrt[3]{x^3y^5} + 9\sqrt[3]{x^3y^5} - 4\sqrt[3]{x^3y^5}$

$= 4(xy\sqrt[3]{y^2}) + 9(xy\sqrt[3]{y^2}) - 4(xy\sqrt[3]{y^2})$

$= 4xy\sqrt[3]{y^2} + 9xy\sqrt[3]{y^2} - 4xy\sqrt[3]{y^2}$

$= \boxed{9xy\sqrt[3]{y^2}}$

4. $5\sqrt{5y} + 2\sqrt{2y} - 4\sqrt{5y}$

$= \boxed{\sqrt{5y} + 2\sqrt{2y}}$

5. $7\sqrt{8z^3} + 3z\sqrt{2z} - 16z\sqrt{z^3}$

$= 7(2z\sqrt{2z}) + 3z\sqrt{2z} - 16z(z\sqrt{z})$

$= 14z\sqrt{2z} + 3z\sqrt{2z} - 16z^2\sqrt{z}$

$= \boxed{17z\sqrt{2z} - 16z^2\sqrt{z}}$