Intermediate Algebra

Study Guide 13

Due Date: _____

Name: _____

Class: _____

Score: _____

No Work ⇔ No Points

Use Pencil Only ⇔ Be Neat & Organized

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1. **(3 points) Simplify** $\sqrt{18x^3} - 2x\sqrt{2x}$.

1. _____

2. **(3 points) Simplify** $\sqrt[3]{-16xy} + \sqrt[3]{54xy} - \sqrt[3]{2xy}$.

2. _____

3. **(3 points) Rationalize the denominator:** $\dfrac{5x}{\sqrt{50x}}$
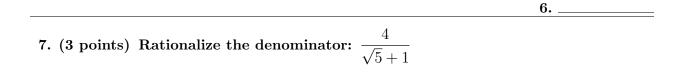
3. _____

4. **(3 points) Rationalize the numerator:** $\dfrac{\sqrt{3xy}}{6xy}$

4. _____

5. (3 points) Rationalize the denominator: $\dfrac{2}{\sqrt[3]{4x}}$

5. _____

6. (3 points) Rationalize the denominator: $\dfrac{xyz}{\sqrt[5]{xy^2z^4}}$

6. _____

7. (3 points) Rationalize the denominator: $\dfrac{4}{\sqrt{5}+1}$

7. _____

8. (3 points) Rationalize the denominator: $\dfrac{\sqrt{7}}{\sqrt{7}-1}$

8. _____

9. (3 points) Rationalize the denominator: $\dfrac{\sqrt{5}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}$

9. _____

10. (3 points) Solve: $\sqrt[4]{2x-9} - 1 = 2$

10. _____

11. (5 points) Solve: $x + \sqrt{x+5} = 7$

11. _____

12. (5 points) Solve: $\sqrt{2x+7} - \sqrt{x-1} = 3$

12. _____

13. (5 points) Solve: $x - \sqrt{x-5} = 5$

13. _____

14. (5 points) Solve: $\sqrt{2x+1} + \sqrt{x-3} = 4$

14. _____