Name: Date: Period:

Simplify.

1. $\sqrt{8}$	2. $\sqrt{12}$	3. $\sqrt{20}$	4. $\sqrt{28}$
5. $\sqrt{40}$	6. $\sqrt{27}$	7. $\sqrt{54}$	8. $\sqrt{63}$
9. $\sqrt{90}$	10. $\sqrt{98}$	11. $\sqrt{99}$	12. $\sqrt{108}$
13. $\sqrt{162}$	14. $\sqrt{175}$	15. $\sqrt{300}$	16. $3\sqrt{8}$
17. $4\sqrt{12}$	18. $2\sqrt{20}$	19. $4\sqrt{90}$	20. $2\sqrt{45}$
21. $3\sqrt{200}$	22. $\frac{1}{2}\sqrt{72}$	23. $\frac{1}{4}\sqrt{48}$	24. $\frac{3}{4}\sqrt{96}$
25. $\frac{2}{3}\sqrt{63}$	26. $5\sqrt{24}$	27. $2\sqrt{80}$	28. $7\sqrt{45}$
29. $8\sqrt{9x}$	30. $\sqrt{3x^3}$	31. $\sqrt{49x^5}$	32. $\sqrt{36r^2s}$
33. $\sqrt{128x^6}$	34. $\sqrt{243xy^2}$	35. $\sqrt{720n^7}$	36. $\sqrt{48x^5y^3z^2}$

37. A student simplified $\sqrt{192}$ by writing $\sqrt{16 \bullet 12} = 4\sqrt{12}$

a. Explain why $4\sqrt{12}$ is not the simplest form of $\sqrt{192}$.

b. Find the simplest form of $\sqrt{192}$.