Test Chapter 9 Form C_____***Free Response***

Simplify.

_____ 1. $\sqrt{25}$

_____ 2. $\sqrt{\frac{16}{25}}$

_____ 3. $\sqrt{25x^8y^2}$

_____ 4. $\sqrt{27x^5y}$

_____ 5. $\sqrt{98}-3\sqrt{2}+\sqrt{18}$

_____ 6. $a\sqrt{27}+\sqrt{48a^2}+\sqrt{12a^2}$

_____ 7. $\left(3\sqrt{x}\right)\left(\sqrt{2x}\right)$

_____ 8. $\sqrt{3}\left(\sqrt{27}-\sqrt{6}\right)$

_____ 9. $\left(2+3\sqrt{2}\right)^2$

_____ 10. $\left(3\sqrt{3}-5\right)\left(4\sqrt{3}+6\right)$

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_____ 11. $\frac{1}{\sqrt{3}}$

_____ 12. $\frac{\sqrt{12}}{\sqrt{2}}$

_____ 13. $\frac{3}{\sqrt{2}-3}$

_____ 14. $\frac{2\sqrt{3}-\sqrt{2}}{3\sqrt{3}+4\sqrt{2}}$

_____ 15. Use the table of square roots or a calculator to approximate $\sqrt{135}$. Round to the nearest hundredth.

Find the missing side using the Pythagorem Theorem.

_____ 16 $a = 8,\ b = 4$

_____ 17. $a = 5,\ c = 7$

Solve.

_____ 18. $\sqrt{2x+9} + 4 = 9$

_____ 19. $\sqrt{2x+2} = x - 3$

_____ 20. y varies indirectly x. $y = 12$ when $x = 3$. Find y when $x = 6$.