

20. Simplify  $\left(\frac{x^{2/3}y^{3/4}z^{-1/2}}{x^{-1/4}z^{-1/6}}\right)^{-6}$  so that there are no negative exponents. Assume that all variables represent positive real numbers.

*Simplify. Assume that all variables represent positive real numbers.*

21.  $\sqrt{72x^9y^7z^4}$

22.  $\sqrt{50x} + 3\sqrt{2x} - 2\sqrt{32x}$

23.  $(3 + 4\sqrt[3]{2})(5 - \sqrt[3]{4})$

24. Rationalize the denominator of  $\frac{12}{5 - 2\sqrt{7}}$  and simplify.

25. The wind chill factor  $w$  is given by the equation  $w = 91.4 - (91.4 - T)(.478 + .301\sqrt{v} - .02v)$ , where  $T$  represents the temperature in degrees Fahrenheit and  $v$  represents the wind velocity. Find the wind chill factor when the temperature is  $-40^\circ\text{F}$  and the wind velocity is 15 mph. (Round to the nearest tenth.)