# SM2-A Lesson 3-7 (Review)

**Simplify.**

1) $\left(\sqrt{2}+\sqrt{3}\right)\left(\sqrt{4}+\sqrt{3}\right)$

2) $\left(5-3\sqrt{5}\right)\left(5+5\sqrt{5}\right)$

3) $\sqrt{32n^2}$

4) $\sqrt[3]{-32x^7y^6}$

**Simplify. Your answer should contain only positive exponents with no fractional exponents in the denominator.**

5) $4m^3 \cdot 4m^{-\frac{5}{4}}$

6) $3x^{-\frac{5}{3}} \cdot 3x^{\frac{5}{3}}$

7) $\left(x^{\frac{1}{2}}\right)^{\frac{7}{4}}$

8) $\left(b^{\frac{1}{3}}\right)^{\frac{1}{3}}$

9) $(6x)^{\frac{5}{3}}$

10) $\sqrt{6v}$

**Factor each completely.**

11) $a^2 - 3a - 70$

12) $r^2 - 15r + 54$

13) $a^2 + 13a + 40$

14) $x^2 + 8x - 20$

15) $7p^2 - p - 8$

16) $7n^2 - 11n + 4$

17) $7n^2 + 10n$

18) $3x^2 + x$