Name _____ Class _____ Date _____

6-3 Standardized Test Prep

Binomial Radical Expressions

Multiple Choice

For Exercises 1–5, choose the correct letter.

1. What is the simplest form of $2\sqrt{72} - 3\sqrt{32}$?

(A) $2\sqrt{72} - 3\sqrt{32}$ (B) $24\sqrt{2}$ (C) $-2\sqrt{2}$ (D) 0

2. What is the simplest form of $(2 - \sqrt{7})(1 + 2\sqrt{7})$?

(F) $-12 + 3\sqrt{7}$ (H) $16 + 5\sqrt{7}$

(G) $-12 - 3\sqrt{7}$ (I) $3 + \sqrt{7}$

3. What is the simplest form of $(\sqrt{2} + \sqrt{7})(\sqrt{2} - \sqrt{7})$?

(A) $9 + 2\sqrt{14}$ (B) $9 - 2\sqrt{14}$ (C) -5 (D) 9

4. What is the simplest form of $\frac{7}{2 + \sqrt{5}}$?

(F) $-14 + 7\sqrt{5}$ (H) $-14 - 7\sqrt{5}$

(G) $14 + 7\sqrt{5}$ (I) $14 - 7\sqrt{5}$

5. What is the simplest form of $8\sqrt[3]{5} - \sqrt[3]{40} - 2\sqrt[3]{135}$?

(A) $16\sqrt[3]{5}$ (B) $12\sqrt[3]{5}$ (C) $4\sqrt[3]{5}$ (D) 0

Short Response

6. A hiker drops a rock from the rim of the Grand Canyon. The distance it falls d in feet after t seconds is given by the function $d = 16t^2$. How far has the rock fallen after $(3 + \sqrt{2})$ seconds? Show your work.