

Section 12-4: Simplifying a Square-  
Root Radical

1. 089902a, P.I. A.N.2

The expression  $\sqrt{50}$  can be simplified to

- [A]  $2\sqrt{25}$                       [B]  $5\sqrt{10}$   
[C]  $5\sqrt{2}$                       [D]  $25\sqrt{2}$

2. 010530a, P.I. A.N.2

When  $\sqrt{72}$  is expressed in simplest  $a\sqrt{b}$  form, what is the value of  $a$ ?

- [A] 8            [B] 6            [C] 3            [D] 2

3. fall0731ia, P.I. A.N.2

Express  $5\sqrt{72}$  in simplest radical form.

4. 080125a, P.I. A2.A.13

Simplify:  $\sqrt{50r^2s^4}$

5. 010422a, P.I. A2.A.13

If  $a > 0$ , then  $\sqrt{9a^2 + 16a^2}$  equals

- [A]  $5\sqrt{a}$     [B]  $5a$     [C]  $\sqrt{7a}$     [D]  $7a$

[1] C

[2] B

[2]  $30\sqrt{2}$ , and appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made.

or [1] Appropriate work is shown, but the answer is not in simplest radical form.

or [1]  $30\sqrt{2}$ , but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[3] incorrect procedure.

[2]  $5rs^2\sqrt{2}$ , and appropriate work is shown.

[1] A partially correct answer is found, such as  $5r\sqrt{2s^4}$  or  $5s^2\sqrt{2r^2}$ , and appropriate work is shown.

or [1]  $7.07rs^2$ , but appropriate work is shown.

or [1]  $5rs^2\sqrt{2}$ , but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[4] incorrect procedure.

[5] B