

**A2.A.13: Simplifying Radicals 1: Simplify radical expressions**

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

1)  $\sqrt{7a}$

3)  $5a$

2)  $5\sqrt{a}$

4)  $7a$

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

3 Simplify:  $3\sqrt{18x^3}$

4 Simplify:  $\sqrt{8a^3b^5}$

5 Simplify:  $\sqrt{50x^3y^2}$

6 Simplify:  $\sqrt{a^2x + a^4}$

7 Simplify:  $\sqrt{a^2b - a^3}$

8 Simplify:  $\sqrt{a^4b^2 - a^2b^4}$

9 Simplify:  $\sqrt{a^3b^2 - a^2b^3}$

10 Simplify:  $\sqrt{a^2b - 2ab^2 + b^3}$

11 Simplify:  $\sqrt{x^3 - 2x^2y + xy^2}$

12 Simplify:  $\frac{1}{a+b} \sqrt{a^3 + 2a^2b + ab^2}$

13 Simplify:  $\frac{1}{2a+b} \sqrt{4a^2b + 4ab^2 + b^3}$

**A2.A.13: Simplifying Radicals 1: Simplify radical expressions****Answer Section**

1 ANS: 3 PTS: 2 REF: 010422a

2 ANS:  
 $5rs^2\sqrt{2}$

PTS: 2 REF: 080125a

3 ANS:  
 $9x\sqrt{2x}$

PTS: 2 REF: 119313al

4 ANS:  
 $2ab^2\sqrt{2ab}$

PTS: 2 REF: 099602al

5 ANS:  
 $5xy\sqrt{2x}$

PTS: 2 REF: 019811al

6 ANS:  
 $a\sqrt{x+a^2}$

PTS: 2 REF: 089312al

7 ANS:  
 $a\sqrt{b-a}$

PTS: 2 REF: 069812al

8 ANS:  
 $ab\sqrt{a^2-b^2}$

PTS: 2 REF: 019415al

9 ANS:  
 $ab\sqrt{a-b}$

PTS: 2 REF: 019713al

10 ANS:  
 $(a-b)\sqrt{b}$

PTS: 2 REF: 089710al

11 ANS:  
 $(x-y)\sqrt{x}$

PTS: 2 REF: 069812al

12 ANS:

$$\sqrt{a}$$

PTS: 2

REF: 089603al

13 ANS:

$$\sqrt{b}$$

PTS: 2

REF: 039807al