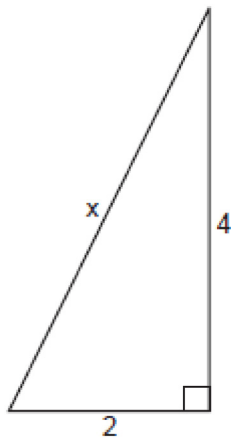


**A.N.2: Simplifying Radicals 4: Simplify radical terms (no variable in the radicand)**

- 1 The expression  $\sqrt{50}$  can be simplified to
- 2 When  $\sqrt{72}$  is expressed in simplest  $a\sqrt{b}$  form, what is the value of  $a$ ?
- 3 Which expression is equivalent to  $7\sqrt{90}$ ?
- 4 The expression  $\sqrt{150}$  is equivalent to
- 5 Simplify:  $3\sqrt{27}$
- 6 Simplify:  $\sqrt{12}$
- 7 Simplify:  $\sqrt{75}$
- 8 Simplify:  $\sqrt{128}$
- 9 Theo determined that the correct length of the hypotenuse of the right triangle in the accompanying diagram is  $\sqrt{20}$ . Fiona found the length of the hypotenuse to be  $2\sqrt{5}$ . Is Fiona's answer also correct? Justify your answer.



**A.N.2: Simplifying Radicals 4: Simplify radical terms (no variable in the radicand)**  
**Answer Section**

1 ANS:

$$5\sqrt{2}$$

$$\sqrt{50} = \sqrt{25} \sqrt{2} = 5\sqrt{2}$$

REF: 089902a

2 ANS:

$$6$$

$$\sqrt{72} = \sqrt{36} \sqrt{2} = 6\sqrt{2}$$

REF: 010530a

3 ANS:

$$21\sqrt{10}$$

$$7\sqrt{90} = 7\sqrt{9} \sqrt{10} = 21\sqrt{10}$$

REF: 060811a

4 ANS:

$$5\sqrt{6}$$

$$\sqrt{150} = \sqrt{25} \sqrt{6} = 5\sqrt{6}$$

REF: spring9819a

5 ANS:

$$9\sqrt{3}$$

REF: 099414a1

6 ANS:

$$2\sqrt{3}$$

REF: 039505a1

7 ANS:

$$5\sqrt{3}$$

REF: 099602a1

8 ANS:

$$8\sqrt{2}$$

REF: 099911a1

9 ANS:

Fiona's answer is correct.  $\sqrt{20} = \sqrt{4} \sqrt{5} = 2\sqrt{5}$

REF: 080833a