

9.1A p. 456 16-40

- | | |
|----------------|---------------|
| 16) ± 5 | 29) ~ -9 |
| 17) ± 13 | 30) ~ 16 |
| 18) ± 9 | 31) ~ 4 |
| 19) ± 17 | 32) ~ -3 |
| 20) ± 32 | 33) 1.7 |
| 21) ± 22 | 34) -3.2 |
| 22) ± 40 | 35) 9.3 |
| 23) ± 30 | 36) 10.5 |
| 24) ~ 7 | 37) -5.7 |
| 25) 6 | 38) 36.4 |
| 26) ~ -11 | 39) 4.4 |
| 27) ~ -12 | 40) 2.6 |
| 28) ~ 4 | |

9.1B p. 456 41-52, 60-65

- | | |
|----------------|-----------------|
| 41) 6 | 51) ± 4.7 |
| 42) 8 | 52) ± 3.5 |
| 43) -72 | 60) ± 3 |
| 44) 9 | 61) ± 18 |
| 45) ± 7 | 62) ± 11.82 |
| 46) ± 26 | 63) ± 2.89 |
| 47) ± 21 | 64) ± 2.94 |
| 48) ± 24 | 65) ± 6.96 |
| 49) ± 4.5 | |
| 50) ± 11.2 | |

Simplifying Radical Expressions

Simplify.

1) $\sqrt{125n}$

$5\sqrt{5n}$

2) $\sqrt{216v}$

$6\sqrt{6v}$

3) $\sqrt{512k^2}$

$16k\sqrt{2}$

4) $\sqrt{512m^3}$

$16m\sqrt{2m}$

5) $\sqrt{216k^4}$

$6k^2\sqrt{6}$

6) $\sqrt{100v^3}$

$10v\sqrt{v}$

7) $\sqrt{80p^3}$

$4p\sqrt{5p}$

8) $\sqrt{45p^2}$

$3p\sqrt{5}$

9) $\sqrt{147m^3n^3}$

$7mn\sqrt{3mn}$

10) $\sqrt{200m^4n}$

$10m^2\sqrt{2n}$

11) $\sqrt{75x^2y}$

$5x\sqrt{3y}$

12) $\sqrt{64m^3n^3}$

$8mn\sqrt{mn}$

13) $\sqrt{16u^4v^3}$

$4u^2v\sqrt{v}$

14) $\sqrt{28x^3y^3}$

$2xy\sqrt{7xy}$

Simplifying Radicals
With Quotients 9.28

Name: _____

Date: _____ Per: _____

Directions: Simplify the following radical expressions completely.

1. $\sqrt{\frac{17}{64}} = \frac{\sqrt{17}}{8}$

2. $\sqrt{\frac{18}{49}} = \frac{3\sqrt{2}}{7}$

3. $\sqrt{\frac{80}{81}} = \frac{4\sqrt{5}}{9}$

4. $\sqrt{\frac{x}{144}} = \frac{\sqrt{x}}{12}$

5. $\sqrt{\frac{x^2}{100}} = \frac{x}{10}$

6. $\sqrt{\frac{300}{4m^2}} = \frac{10\sqrt{3}}{2m}$

7. $\sqrt{\frac{27x}{25}} = \frac{3\sqrt{3x}}{5}$

8. $\sqrt{\frac{16x}{y^2}} = \frac{4\sqrt{x}}{y}$

9. $\sqrt{\frac{108m^2}{121n^2}} = \frac{6m\sqrt{3}}{11n}$

Directions: Simplify the following radical expressions completely.

10. $\sqrt{\frac{32x^4}{49}} = \frac{4x^2\sqrt{2}}{7}$

11. $\sqrt{288m^4n^8}$
 $12m^2n^4\sqrt{2}$

12. $\sqrt{\frac{144y^3}{225}} = \frac{12y\sqrt{y}}{15} = \frac{4y\sqrt{y}}{5}$

13. $\sqrt{400x^2y^3}$
 $20xy\sqrt{y}$

14. $\sqrt{\frac{50m^5}{98n^2}} = \frac{5m^2\sqrt{m}}{7n}$

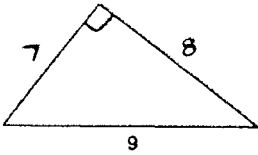
15. $\sqrt{72a^3b^7}$
 $6ab^3\sqrt{2ab}$

The Pythagorean Theorem #1 9.3A

Date _____ Period _____

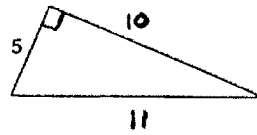
Do the following lengths form a right triangle?

1)



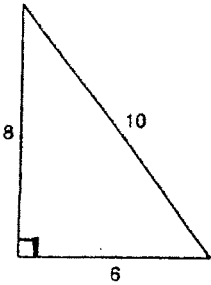
NO

2)



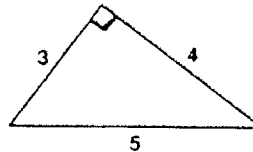
NO

3)



YES

4)



YES

5) $a = 6$, $b = 12$, $c = 12.5$

NO

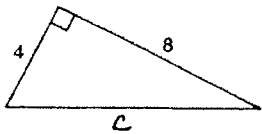
6)

$a = 4.2$, $b = 14.4$, $c = 15$

YES

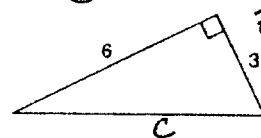
Find each missing length to the nearest tenth. (MISSING HYPOTENUSE)

7)



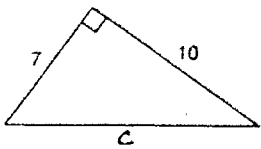
$8.9 = c$
OR
 $4\sqrt{5}$

8)



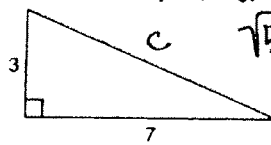
$c = 6.7$ OR $3\sqrt{5}$ 13) $a = 20$, $b = 21$, $c = ?$
 $c = 29$

9)



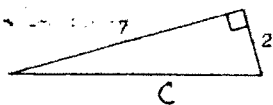
$c = 12.2$
OR
 $\sqrt{149}$

10)



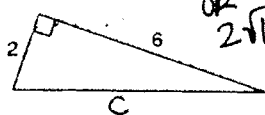
$c = 7.6$ OR $\sqrt{58}$ 14) $a = 7$, $b = 24$, $c = ?$
 $c = 25$

11)



$c = 7.3$
OR
 $\sqrt{53}$

12)



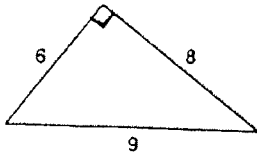
$c = 6.3$ OR $2\sqrt{10}$ 15) $a = 3$, $b = 5$, $c = ?$
 $c = 5.8$
OR

The Pythagorean Theorem #2 9.3B

Date _____ Period _____

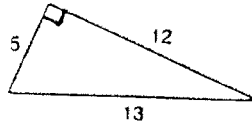
Do the following lengths form a right triangle?

1)



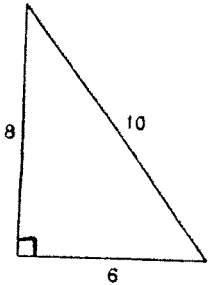
NO

2)



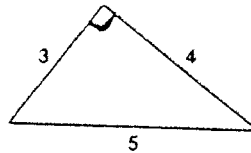
YES

3)



YES

4)



YES

5) $a = 6.4, b = 12, c = 12.2$

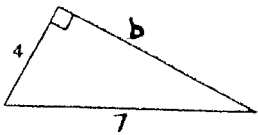
NO

6) $a = 2.1, b = 7.2, c = 7.5$

YES

Find each missing length to the nearest tenth. (MISSING LEG)

7)

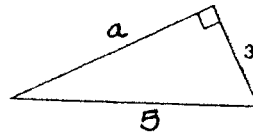


$$b = 5.7$$

OR

$$\sqrt{33}$$

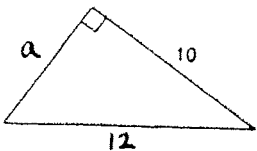
8) $a = 4$



13) $a = 5, b = ?, c = 13$

$$b = 12$$

9)

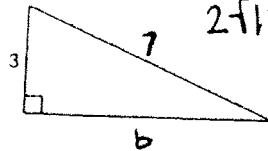


$$a = 6.6$$

OR

$$2\sqrt{11}$$

10) $b = 6.3$ OR $2\sqrt{10}$



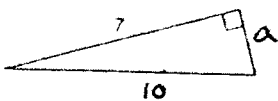
14) $a = ?, b = 12, c = 14$

$$a = 7.2$$

OR

$$2\sqrt{13}$$

11)

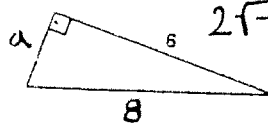


$$a = 7.1$$

OR

$$\sqrt{51}$$

12) $a = 5.3$ OR $2\sqrt{7}$



15) $a = 9, b = ?, c = 15$

$$b = 12$$