

Chapter 7: Right Triangles  
Lesson 7-1: Geometric Mean  
Classwork

name \_\_\_\_\_  
date \_\_\_\_\_  
period \_\_\_\_\_

For questions 1-5, find the Geometric Mean of the following:

1. 2 and 50

equation  $\sqrt{100}$

x = 10

2. 50 and 1250

equation  $\sqrt{50 \cdot 1250}$

x = 250

3. 5 and 45

equation  $\sqrt{5 \cdot 45}$

x = 15

4. 45 and 405

equation  $\sqrt{45 \cdot 405}$

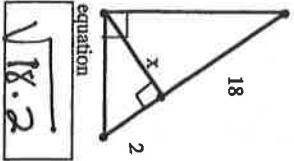
x = 135

5. 6.4 and 8.8

equation  $\sqrt{6.4(8.8)}$

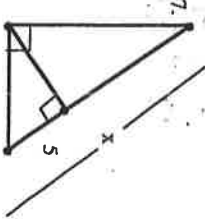
x = 7.505

For questions 6-15, solve for the missing value(s).



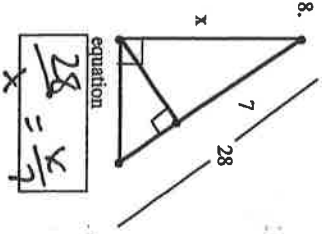
equation  $\sqrt{18 \cdot 2}$

x = 6



equation  $\frac{x}{15} = \frac{5}{x}$

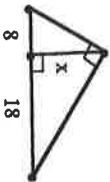
x = 45



equation  $\frac{28}{x} = \frac{x}{7}$

x = 14

9.



equation  $\sqrt{8 \cdot 18}$

x = 12

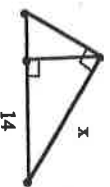
10.



equation  $\frac{x}{15} = \frac{7}{x}$

x = 10.5

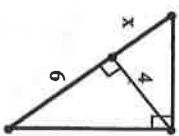
11.



equation  $\frac{30}{x} = \frac{x}{14}$

x = 20.49

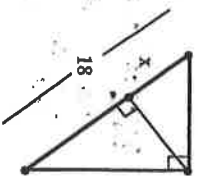
12.



equation  $\sqrt{6x} = 4$

6x = 16  
x = 2.67

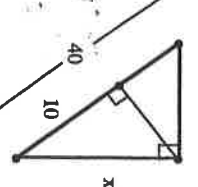
13.



equation  $\frac{18}{12} = \frac{12}{x}$

x = 8

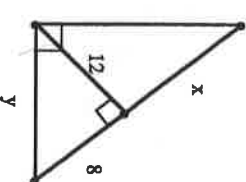
14.



equation  $\frac{40}{x} = \frac{x}{10}$

x = 20

15.



equation  $\sqrt{8x} = 12$

8x = 144  
x = 18

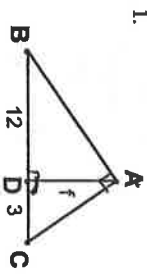
equation  $\frac{2x}{y} = \frac{y}{8}$

y = 14.42

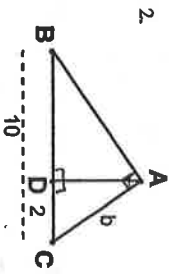
Chapter 7: Right Triangles  
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$\triangle ABC$  is a right triangle with  $\overline{AD} \perp \overline{BC}$ .

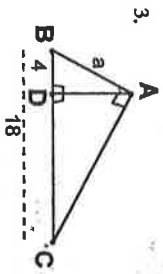


$f = 6$



$\frac{10}{b} = \frac{b}{2}$

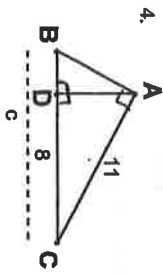
$b = \sqrt{4 \cdot 10}$



$\frac{18}{a} = \frac{a}{4}$

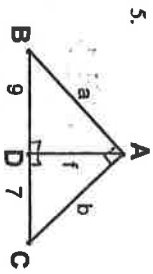
$a = \sqrt{8 \cdot 49}$

$c = 15.13$



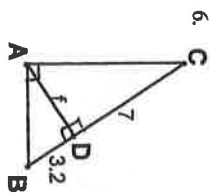
$\frac{c}{11} = \frac{11}{8}$

$f = \sqrt{9 \cdot 7}$

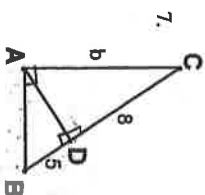


$\frac{15}{b} = \frac{b}{7}$

$a = 12$   
 $b = \sqrt{10 \cdot 58}$   
 $f = \sqrt{7 \cdot 94}$

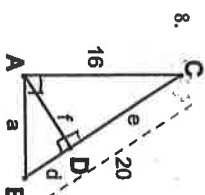


$f = \sqrt{4 \cdot 73}$



$\frac{8}{b} = \frac{b}{5}$   
 $b^2 = 104$

$b = \sqrt{10 \cdot 20}$



$\frac{20}{16} = \frac{16}{e}$      $\frac{20}{a} = \frac{a}{1.2}$   
 $20e = 256$

$c = 12.8$   
 $d = \sqrt{7 \cdot 2}$   
 $f = \sqrt{9 \cdot 6}$   
 $a = 12$

9. Find the geometric mean between 5 and 11.

9.  $\sqrt{5 \cdot 11}$

10. Find the geometric mean between 1 and 100.

10.  $\sqrt{10}$