


February 5, 2013
Warm Up

Determine whether each set of numbers can be the measures of the sides of a triangle. If so classify the triangle as acute, right or obtuse.

- 11, 60, 61
- $2\sqrt{3}$, $4\sqrt{2}$, $3\sqrt{5}$

Jim is hanging basketballs from the gym ceiling using string for the play off game tonight. He wants the ends of the strings where the basketballs will be attached to be 9 feet from the floor. He is standing 15 feet from the wall and he is 6 feet tall. How long should Jim make the string?

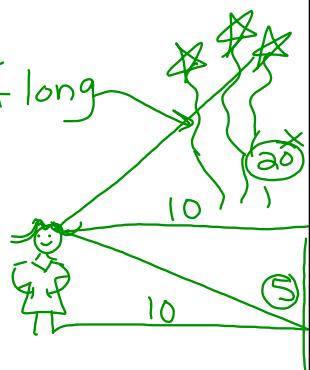


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Text
p 536
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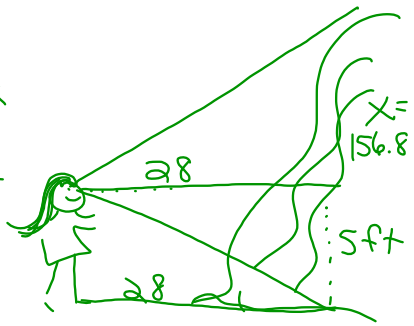
$10^2 = 5x$
 $100 = 5x$
 $20 = x$

$\frac{25}{7}$
18 ft long



Feb 5-12:57 PM

$28^2 = 5x$
 $784 = 5x$
 $156.8 = x$
 $+ 5$
 161.8
ft

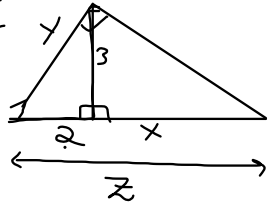


Feb 5-1:02 PM

$3^2 = 2x$
 $9 = 2x$
 $x = 4.5$

$y^2 = a(a+x)$
 $y^2 = 4+2x$

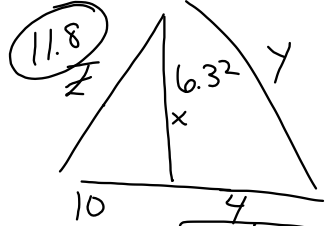
$y = \sqrt{2^2 + 3^2}$
 $y = \sqrt{13}$



Feb 5-11:00 AM

$x^2 = 10 \cdot 4$
 $x^2 = 40$
 $x = \sqrt{40}$
 $x = 2\sqrt{10}$

11.8



$\sqrt{(6.32)^2 + (4)^2} = y$
 $\sqrt{40 + 100}$
140

Feb 5-11:08 AM

Geometric Mean = $\sqrt{\text{Product of 2\#s}}$

5 6 = $\sqrt{30} = 5.5$
2 6 = $\sqrt{12} = 2\sqrt{3} = 3.5$
 $\sqrt{48} = 4\sqrt{3} = 6.9$
3 6 = $\sqrt{18} = 3\sqrt{2}$
 $\sqrt{60} = 2\sqrt{15} = 4.5$

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WB p97

① $x = \sqrt{2 \cdot 8}$
 $x = \sqrt{16}$
 $x = 4$

② $x = \sqrt{9 \cdot 36}$
 $x = \sqrt{324}$
 $x = 18$

③ $x = \sqrt{4 \cdot 7}$
 $x = \sqrt{28}$
 $x = 2\sqrt{7}$

④ $x = \sqrt{5 \cdot 10}$
 $x = \sqrt{50}$
 $x = 5\sqrt{2}$

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⑤ $x = \sqrt{28 \cdot 14}$
 $x = \sqrt{392}$
 $x = 14\sqrt{2}$

⑥ $x = \sqrt{7 \cdot 36}$
 $x = \sqrt{252}$
 $x = 6\sqrt{7}$

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⑦

$\triangle CAB \sim \triangle DAC \sim \triangle CDB$

⑧

$\triangle NML \sim \triangle PMN \sim \triangle PNL$

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⑩

$x = \sqrt{5 \cdot 2^2 + 3^2}$
 $x = \sqrt{27 + 9}$
 $x = \sqrt{36}$
 $x = 6$

$z^2 = 3 \cdot 9$
 $z^2 = 27$
 $z = \sqrt{27} = 3\sqrt{3}$

$y = \sqrt{5 \cdot 2^2 + 9^2}$
 $y = \sqrt{20 + 81}$
 $y = \sqrt{101}$
 $y \approx 10.1$

Feb 5-1:16 PM

⑫

$\sqrt{(6.3)^2 + 10^2} = z$
 $\sqrt{40 + 100} = z$
 $\sqrt{140} = z = 11.8$

$x^2 = 10 \cdot 4$
 $x = \sqrt{40}$
 $x = 6.3$

$y = \sqrt{(6.3)^2 + (4)^2}$
 $y = \sqrt{40 + 16}$
 $y = \sqrt{56} = 7.5$

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⑬

$y = \sqrt{15^2 + (7.7)^2}$
 $y = \sqrt{225 + 60}$
 $y = \sqrt{285}$
 $y = 16.9$

$x = \sqrt{15 \cdot 4}$
 $x = \sqrt{60}$
 $x = 7.7$

$z = \sqrt{4^2 + 7.7^2}$
 $z = \sqrt{16 + 60}$
 $z = \sqrt{76}$
 $z = 8.7$

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9

$z = \sqrt{20^2 - 10^2}$
 $z = \sqrt{300}$
 $z = 17.32$

$17.3^2 = x \cdot 20$
 $300 = 20x$
 $\frac{300}{20} = \frac{20x}{20}$
 $x = 15$

$10^2 = y \cdot 20$
 $100 = 20y$
 $\frac{100}{20} = \frac{20y}{20}$
 $5 = y$

$z = 17.32$

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9

$z = \sqrt{20^2 - 10^2}$
 $z = \sqrt{300}$
 $z = 17.3$

$10^2 = 20y$
 $100 = 20y$
 $5 = y$

$(17.3)^2 = x \cdot 20$
 $300 = 20x$
 $15 = x$

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3 4 5
1-9 2-8 1-7

$7 > 5$

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NO $9 = 9$

2 7 9

yes $12 + 7 > 15$
 $15 < 12 + 7$

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12 15 10

$(10^2) + (12^2)$ (15^2)
 $100 + 144$ 225
 $244 > 225$

Acute

Feb 5-1:36 PM

#14 ws p97

$y^2 = 5^2 + 2^2$
 $y = \sqrt{5^2 + 2^2}$
 $z = \sqrt{5^2 + 12.5^2}$

$5^2 = 2x$
 $25 = 2x$
 $12.5 = x$

$5 = \sqrt{2} \cdot x$

Feb 5-9:06 AM