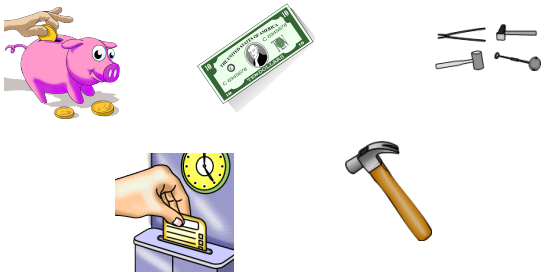
Financial and Workplace Mathematics 110



Course Outline

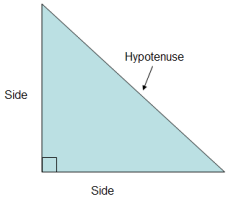
Expectations

Sep 4-1:57 PM

Trigonometry

- The branch of mathematics that deals with triangles, specifically right angled triangles

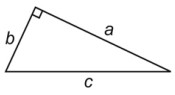
What do we already know how to calculate using right triangles?



Mar 9-8:52 AM

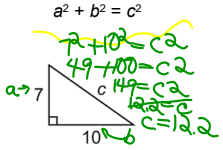
Activate Prior Learning: The Pythagorean Theorem

In any right triangle, the sum of the squares of the two shorter sides is equal to the square of the longer side.



$a^2 + b^2 = c^2$

What is the unknown length in this right triangle?



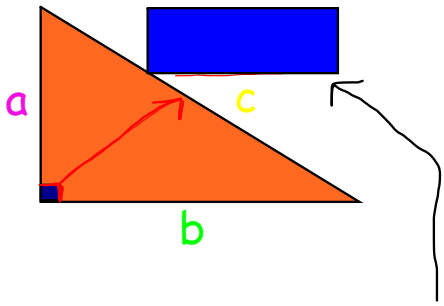
$7^2+10^2=c^2$
$49+100=c^2$
$149=c^2$
$c=12.2$

1.4 Surface Areas of Right Pyramids and Right Cones

You can determine if a triangle has a right angle by using this theorem or find an unknown side length.

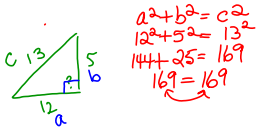
Activating Prior Learning 2

Pythagorean Theorem



What is this side called?

Feb 3-11:08 AM

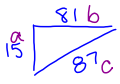


$a^2+b^2=c^2$
$12^2+5^2=13^2$
$144+25=169$
$169=169$

Is this a right angled triangle??

$a^2+b^2:c^2$
$12^2+5^2\}13^2$
$144+25\}169$
169
Yes

Sep 9-2:16 PM

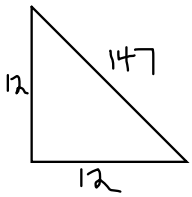


Is this a right angled triangle?

$a^2+b^2=c^2$
$15^2+81^2=87^2$
$225+6561=7569$
$6786 \neq 7569$
No

$a^2+b^2=c^2$
$15^2+81^2\}87^2$
$225+6561\}7569$
6786
Not a right $\triangle$

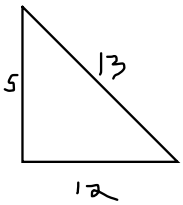
Sep 9-2:20 PM



Review from yesterday:

Is this a right angled triangle?
Show proof.

Sep 4-2:47 PM

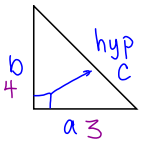


Review from yesterday:

Is this a right angled triangle?
Show proof.

Sep 4-2:47 PM

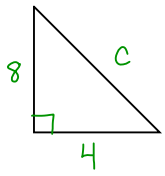
What is the length of the hypotenuse?



$a^2 + b^2 = c^2$
$3^2 + 4^2 = c^2$
$9 + 16 = c^2$
$\sqrt{25} = \sqrt{c^2}$
$5 = c$

Sep 9-2:22 PM

What is the length of the hypotenuse?



$a^2 + b^2 = c^2$
$4^2 + 8^2 = c^2$
$16 + 64 = c^2$
$\sqrt{80} = \sqrt{c^2}$
$c = 8.9$

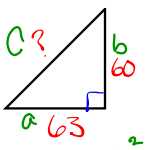
Sep 9-2:26 PM

Sheets T1 and T2 to be completed.

Sep 3-10:00 PM

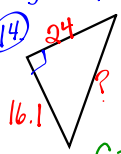
Page T/2

(7)



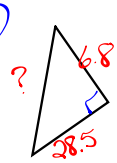
$c^2 = a^2 + b^2$
$c^2 = 63^2 + 60^2$
$c^2 = 3969 + 3600$
$\sqrt{c^2} = \sqrt{7569}$
$c = 87$

(14)



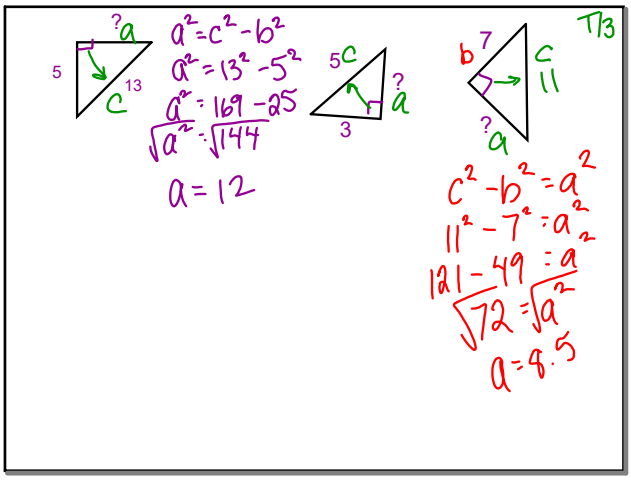
$c = 28.9$

(15)

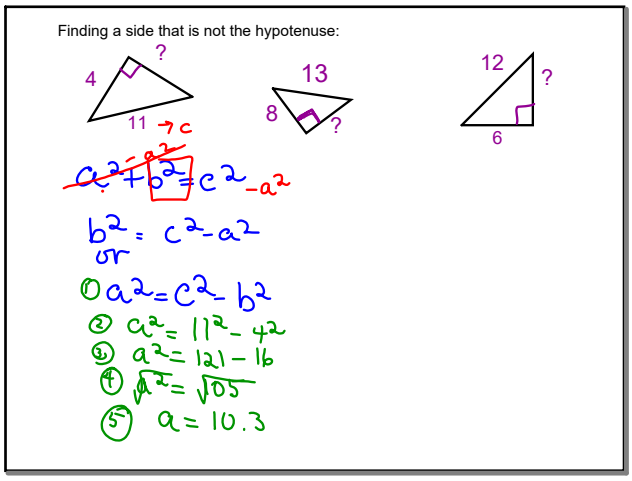


$c = 29.3$

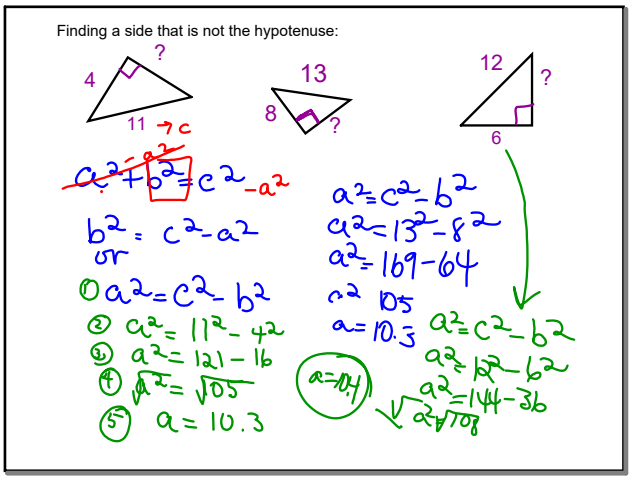
Sep 12-2:04 PM



Sep 9-2:29 PM



Sep 12-2:03 PM



Sep 12-2:03 PM

Complete Sheet T3

Sep 5-2:32 PM

Ask yourself:
→ Is it a right triangle?
→ if yes...
→ am I looking for long side (c) or a short side (a or b)
$c^2=a^2+b^2$ $a^2=c^2-b^2$
→ if no...
→ Do I know all 3 sides?
→ try $a^2+b^2=c^2$
(left side vs. right side)

Sep 12-1:56 PM

Sheet T4 - Answer all questions on the answer sheet.

- Start off with the formula
- Show all your steps for full value

Sep 6-8:24 AM

Attachments

Course Outline 2019.docx


Course Outline 2019.docx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