Warm-Up

January 17, 2018

Evaluate

1) $\dfrac{3^2(5^0+2+2^2)}{2(5+4^2)}$

$\dfrac{9(1+2+4)}{2(5+16)}$

$\dfrac{9(7)}{2(21)}$

$\dfrac{63}{42} = 1\frac{21}{42} = 1\frac{1}{2}$

Simplify then Evaluate

2. $\dfrac{(-4)^3 \times (-4)^4}{(-4)^2 \times (-4)^3} + 3^4$

$\dfrac{(-4)^7}{(-4)^5} + 3^4$

$(-4)^2 + 3^4$

$16 + 81$

97

Exam Review Unit 1

Perfect Squares

Surface Area

Which of the following are perfect squares?

A. 1.69 $\frac{169}{100}$ ← 13x13, ← 10x10 (yes)

B. 0.9 $\frac{9}{10}$ ← 3x3, ← NO (NO)

C. 81 ← 9x9 yes

D. 12.1 $\frac{121}{10}$ ← yes 11x11, ↖ NO (NO)

E. $\frac{100}{42}$ ← 10x10, ↖ NO

$\frac{50}{21}$ ← NO, ↖ NO

Find the square root of the following using Fractions

a) $\sqrt{\frac{81}{100}} = \frac{9}{10}$

b) $\sqrt{\frac{121}{25}} = \frac{11}{5}$

c) $\frac{9}{100} = \frac{3}{10}$

d) $6.25 \quad \sqrt{\frac{625}{100}} = \frac{25}{10}$

Find the number whose square root is:

A) $\frac{9}{25}$

$\sqrt{?} = \frac{9}{25}$ $\times \frac{9}{25}$

$\frac{81}{625}$

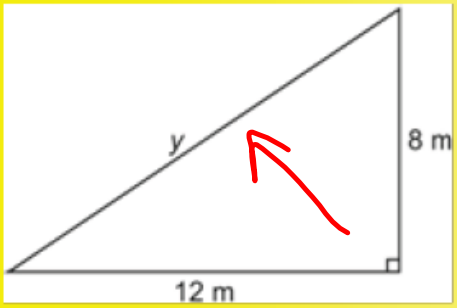
B) 0.4 $\frac{4}{10}$

$\sqrt{?} = \frac{4}{10}$ $\times \frac{4}{10}$

$\frac{16}{100}$

Calculate the unknown side

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



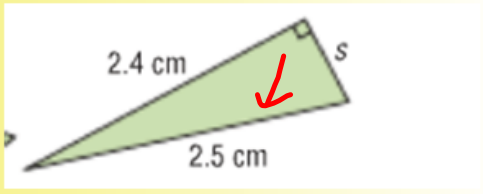
$c^2 = a^2 + b^2$

$c^2 = 12^2 + 8^2$

$c^2 = 144 + 64$

$\sqrt{c^2} = \sqrt{208}$

$c = 14.4$



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

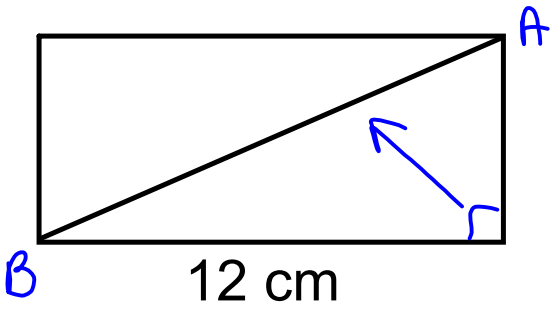
$2.5^2 = a^2 + 2.4^2$

$6.25 = a^2 + 5.76$

$\sqrt{a^2} = \sqrt{0.49}$

$a = 0.7$

What is the length of the diagonal?



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

$c^2 = 5^2 + 12^2$

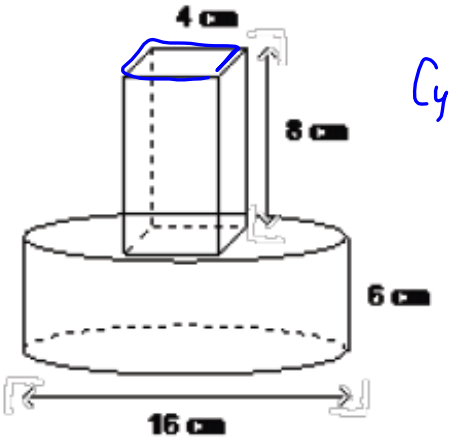
$c^2 = 25 + 144$

$\sqrt{c^2} = \sqrt{169}$

$c = 13$

$17 - 13 = 4$ cm saved

How much distance is saved if you walk the diagonal from A to B versus walking the lines from A to B?



$SA = 2\pi r^2 + 2\pi rh$

Cylinder

Rectangular Prism

T/B

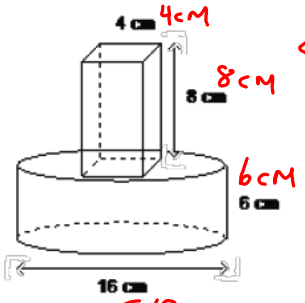
x 2

F/B

x 2

side

x 2



SA cylinder

$2\pi r^2 + 2\pi r h$

$2\pi(8)^2 + 2\pi(8)(6)$

$401.92 + 301.44$

$703.36\ cm^2$

F/B

x2 4

8

A = bh

= 8x4

= 32

x2

64

T/B

x2 4

4

A = bh

= 4x4

= 16

x2

32

Side

x2 4

8

A = bh

= 8x4

= 32

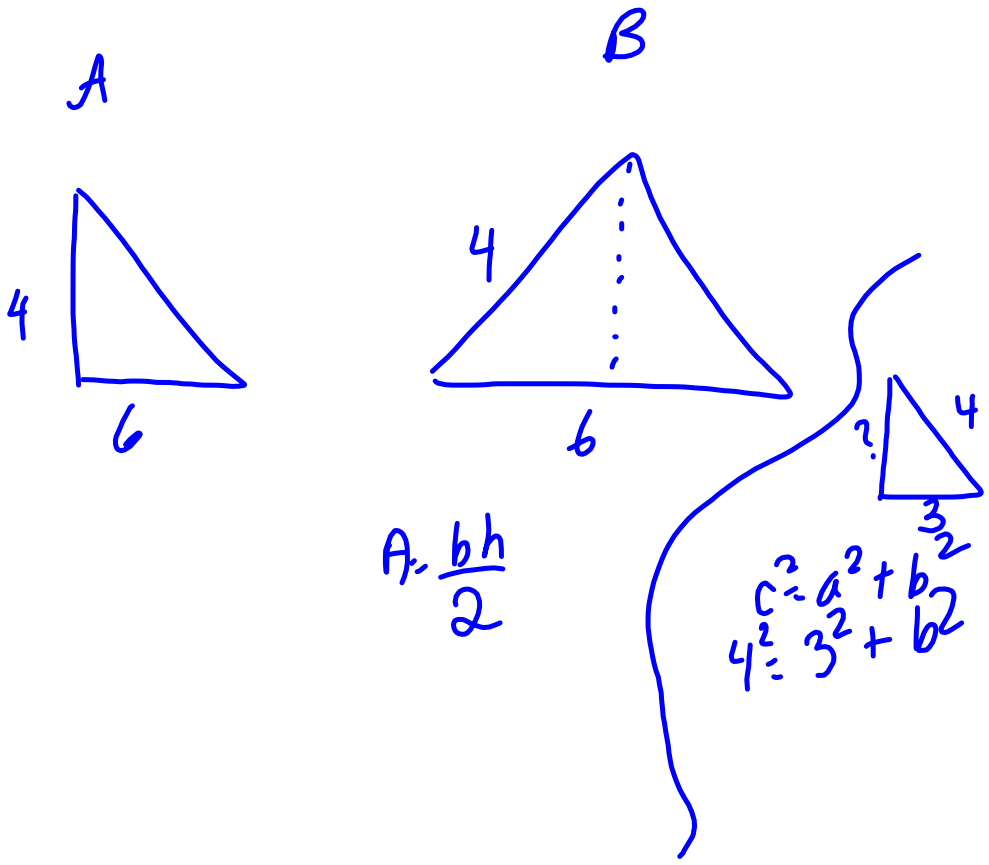
x2

64

160

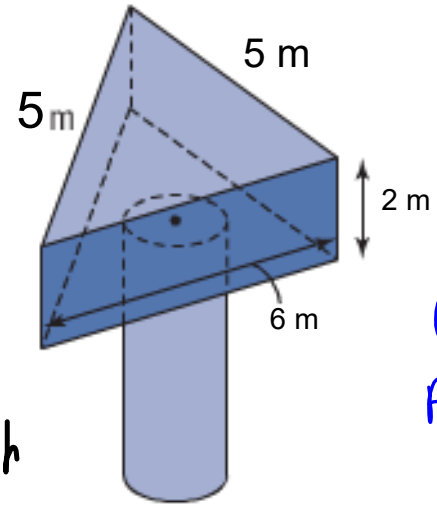
$703.36 + 160 - 32 =$

$831.36\ cm^2$


A
4
6
B
4
6
?
4
3
$A = \frac{bh}{2}$
$c^2 = a^2 + b^2$
$4^2 = 3^2 + b^2$

Find the surface area of the following:

Cylinder
radius = 1m
height = 5m



Area triangles

x2

$A = \frac{bh}{2}$

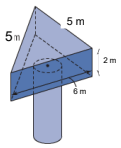
6

Cylinder

$2\pi r^2 + 2\pi r h$

Sides triangular prism

Find the surface area of the following:

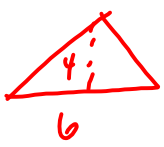


$2\pi r^2 + 2\pi rh$

$2\pi(1)^2 + 2\pi(1)5$

$6.28 + 31.4$

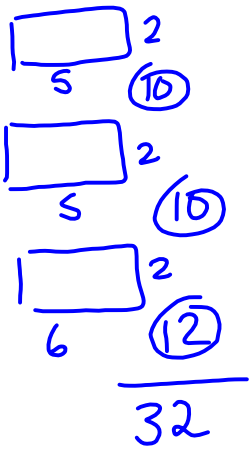
37.68

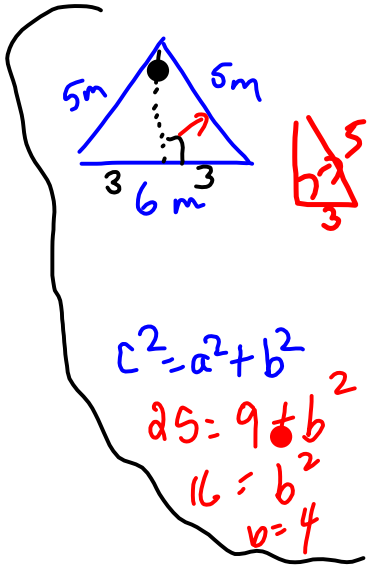


$\times 2$

$A = \frac{bh}{2}$

$= \frac{4 \times 4}{2} = \frac{24}{2} = 12 \times 2 = 24$





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

$25 = 9 + b^2$

$16 = b^2$

$b = 4$

$37.68 + 32 + 24 - 6.28 = 87.4\ m^2$

What must be done...

1. All of Chapter 1 Square Roots and Surface Area Review questions 1-22

2. two questions involving triangular prisms

Attachments

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