

Forum:[Hack Forums](#)

Thread: [Geometry Question](#)

Sharjah - August 30, 2017, 5:39 pm

So, I'm taking a math class that starts out with geometry and I'm confused as shit with this:

<http://prntscr.com/gf6ckw>

I put in the formula of $P = \frac{1}{2}(\pi d) + 2(d)$

$$P = \frac{1}{2}(3.14)(4) + 8$$

Answer is incorrect though. So I guess the diameters are wrong or some shit

Steve - August 30, 2017, 5:42 pm

You are correct in calculating the perimeter of the semi circle with $\frac{1}{2}(\pi d)$ but remember that there are two of them:

$$\text{So } P = 2 * (\frac{1}{2}(3.14)(4)) + 8$$

Sharjah - August 30, 2017, 5:44 pm

(Aug 30, 2017 05:42 PM)Steve Wrote: [\[CITE\]](#) You are correct in calculating the perimeter of the semi circle with $\frac{1}{2}(\pi d)$ but remember that there are two of them:

$$\text{So } P = 2 * (\frac{1}{2}(3.14)(4)) + 8$$

Did that and I got 28.56

Originally I got 14.28 cause I didn't multiply 2 with it, but both are incorrect

Steve - August 30, 2017, 5:46 pm

(Aug 30, 2017 05:44 PM)?ossen Wrote: [\[CITE\]](#) Did that and I got 28.56

Originally I got 14.28 cause I didn't multiply 2 with it, but both are incorrect
 $P = 2 * (\frac{1}{2}(3.14)(4)) + 8 = 20.56$

Sharjah - August 30, 2017, 5:47 pm

(Aug 30, 2017 05:46 PM)Steve Wrote: [\[CITE\]](#) $P = 2 * (\frac{1}{2}(3.14)(4)) + 8 = 20.56$
Welp that was right lol..

What about area? What's the formula for that?

Steve - August 30, 2017, 5:49 pm

(Aug 30, 2017 05:47 PM)?ossen Wrote: [\[CITE\]](#) Welp that was right lol..

What about area? What's the formula for that?

That would be the area of the square plus the area of both semi circles (which can be treated as a single circle).

$$\text{Square: length} \times \text{width} = 4 \times 4 = 16$$

Circle: $\pi \times \text{radius squared} = 3.14 \times 2 \times 2 = 12.56$

$16 + 12.56 = 28.56$

God-Zeus - August 30, 2017, 5:52 pm

For the square is: $l \times l = 4 \text{ in} \times 4 \text{ in} = 16 \text{ in}^2$

For the semicircles: Since there is 2 of them and they have the same diameter I will just add them up and calculate a whole circle. So:

$A = \pi \times r^2$, Since $r = d/2$ then $r = 4/2 = 2 \text{ in}$.

So $A = \pi \times 2 \text{ in}^2 = 12.56 \text{ in}^2$

So: $16 \text{ in} + 12.56 \text{ in}^2 = 28.56$

For the perimeter of the circle:

$P = 2 \times \pi \times r$, there is two of them so ill treat it like a whole circle.

$P = 2 \times 3.14 \times 2 = 12.56$

For the perimeter of the square $= 4 + 4 = 8$

So total is: 20.56 in

Sharjah - August 30, 2017, 5:52 pm

(Aug 30, 2017 05:49 PM)Steve Wrote: [\[CITE\]](#) That would be the area of the square plus the area of both semi circles (which can be treated as a single circle).

Square: length x width $= 4 \times 4 = 16$

Circle: $\pi \times \text{radius squared} = 3.14 \times 2 \times 2 = 12.56$

$16 + 12.56 = 28.56$

Sweet thanks!

Also ,if u dont mind. I have one last problem. I try reading the guides that they give us, but they only show how to do the perimeter and not the areas so it's annoying.

<http://prntscr.com/gf6gvp>

Honestly, don't know how I can't figure it out. I'm a sophomore in college and I feel retarded lol..
long ass summer

entiretv - August 30, 2017, 5:56 pm

(Aug 30, 2017 05:52 PM)?ossen Wrote: [\[CITE\]](#) Sweet thanks!

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<http://prntscr.com/gf6gvp>

Honestly, don't know how I can't figure it out. I'm a sophomore in college and I feel retarded lol..
long ass summer

Just split it into 2 shapes a square and triangle. The square is 2x2 feet so thats 4 ft^2 . Then there's the triangle which is

$2 \times 8 / 2$

So $8. 8 \text{ ft}^2 + 4 \text{ ft}^2$

So it should be 10 ft^2

Sharjah - August 30, 2017, 5:57 pm

(Aug 30, 2017 05:56 PM)entiretv Wrote: [\[CITE\]](#) Just split it into 2 shapes a square and triangle. The square is 2×2 feet so thats 4 ft^2 . Then there's the triangle which is

$$2 \times 8 / 2$$

$$\text{So } 8. \text{ } 8 \text{ft}^2 + 4 \text{ft}^2$$

So it should be 10 ft^2

Why would I split it into 2 shapes? Just asking so I know for quizzes and I can write it down in my notes

Steve - August 30, 2017, 5:57 pm

(Aug 30, 2017 05:52 PM)?ossen Wrote: [\[CITE\]](#) Sweet thanks!

Also ,if u dont mind. I have one last problem. I try reading the guides that they give us, but they only show how to do the perimeter and not the areas so it's annoying.

<http://prntscr.com/gf6gvp>

Honestly, don't know how I can't figure it out. I'm a sophomore in college and I feel retarded lol.. long ass summer

Draw a line to separate the shape into smaller shapes that you know how to calculate the area for. For this one you can separate it into a square with length 2ft and a triangle with base 6 ft and height 2 ft. (Let me know if you need help understanding why the base is 6 ft and height is 2 ft.)

Then calculate the area.

$$\text{Square: length} \times \text{width} = 2 \text{ft} \times 2 \text{ft} = 4 \text{ ft squared}$$

$$\text{Triangle: } \frac{1}{2} (\text{base} \times \text{height}) = \frac{1}{2} (6 \text{ft} \times 2 \text{ft}) = 6 \text{ ft squared}$$

$$\text{Total area} = 4 \text{ ft squared} + 6 \text{ ft squared} = 10 \text{ ft squared}$$

God-Zeus - August 30, 2017, 5:57 pm

(Aug 30, 2017 05:52 PM)?ossen Wrote: [\[CITE\]](#) Sweet thanks!

Also ,if u dont mind. I have one last problem. I try reading the guides that they give us, but they only show how to do the perimeter and not the areas so it's annoying.

<http://prntscr.com/gf6gvp>

Honestly, don't know how I can't figure it out. I'm a sophomore in college and I feel retarded lol.. long ass summer Divide the figure in 2, a square and a triangle.

For the Area:

$$\text{Square: } 2 \text{ ft} \times 2 \text{ ft} = 4 \text{ ft}^2$$

$$\text{Triangle: } (b \times h) / 2 = (6 \times 2) / 2 = 6 \text{ ft}^2$$

$$\text{Total is: } 10 \text{ ft}^2$$

For the perimeter just add all the sides:

$$2 + 2 + 6.3 + 8 \text{ ft} = 18.3 \text{ ft}$$

Sharjah - August 30, 2017, 5:59 pm

Thanks guys ^

Still confused on how to make it into 2 shapes (triangle and square) to get the numbers?

Steve - August 30, 2017, 6:00 pm

(Aug 30, 2017 05:59 PM)?ossen Wrote: [\[CITE\]](#) Thanks guys ^

Still confused on how to make it into 2 shapes (triangle and square) to get the numbers?
Eating dinner now. When I'm done I will draw it out for you if someone else doesn't first.

Maybe Jess. can do it for you :)

Sharjah - August 30, 2017, 6:03 pm

(Aug 30, 2017 06:00 PM)Steve Wrote: [\[CITE\]](#) Eating dinner now. When I'm done I will draw it out for you if someone else doesn't first.

Maybe Jess. can do it for you :)

Ok for sure. Thanks for ur help. If no one can draw it for me by the time ur back, I'd appreciate it!

God-Zeus - August 30, 2017, 6:03 pm

(Aug 30, 2017 05:59 PM)?ossen Wrote: [\[CITE\]](#) Thanks guys ^

Still confused on how to make it into 2 shapes (triangle and square) to get the numbers?There you go:

<https://prnt.sc/gf6jqf>

entiretv - August 30, 2017, 6:03 pm

(Aug 30, 2017 05:57 PM)?ossen Wrote: [\[CITE\]](#) Why would I split it into 2 shapes? Just asking so I know for quizzes and I can write it down in my notes

You don't really physically split it up I just like to think of it that way. Because there's no formula to find area of that shape but there is for a square and there is for a triangle. So when looking at shapes just try breaking it up so you don't get too overwhelmed

Sharjah - August 30, 2017, 6:04 pm

(Aug 30, 2017 06:03 PM)ZeusAlvarez Wrote: [\[CITE\]](#) There you go:

<https://prnt.sc/gf6jqf>

But the triangle is 6.3 not 6

Edit: Oh round to the nearest hundredth.. I need adderall god damn lol

Steve - August 30, 2017, 6:04 pm

(Aug 30, 2017 06:03 PM)ZeusAlvarez Wrote: [\[CITE\]](#) There you go:

<https://prnt.sc/gf6jqf>

Thanks! From here you should be able to see that, because every side of the square is equal, that the base of the triangle is 8 ft - 2 ft and the height is 2 ft

Sharjah - August 30, 2017, 6:06 pm

(Aug 30, 2017 06:04 PM)Steve Wrote: [\[CITE\]](#) Thanks! From here you should be able to see that, because every side of the square is equal, that the base of the triangle is 8 ft - 2 ft and the height is 2 ft

Oh, so it's 6 because you're taking 2 out of it?

Steve - August 30, 2017, 6:07 pm

(Aug 30, 2017 06:04 PM)?ossen Wrote: [\[CITE\]](#) But the triangle is 6.3 not 6

Edit: Oh round to the nearest hundredth.. I need adderall god damn lol
No, you don't round. 6.3 ft is the length of the hypotenuse. The base is the bottom of it.

God-Zeus - August 30, 2017, 6:07 pm

(Aug 30, 2017 06:04 PM)?ossen Wrote: [\[CITE\]](#) But the triangle is 6.3 not 6

Edit: Oh round to the nearest hundredth.. I need adderall god damn lolWhat do you mean?
6.3 is the hypotenuse. The base is $8 - 2$, so 6.
The height is 2.

Sharjah - August 30, 2017, 6:08 pm

Thanks guys! I think I understand now haha

God-Zeus - August 30, 2017, 6:11 pm

(Aug 30, 2017 06:08 PM)?ossen Wrote: [\[CITE\]](#) Thanks guys! I think I understand now hahaHere you go: <https://prnt.sc/gf6m2p>
No problem, glad to help.

Steve - August 30, 2017, 6:16 pm

(Aug 30, 2017 06:11 PM)ZeusAlvarez Wrote: [\[CITE\]](#) Here you go: <https://prnt.sc/gf6m2p>
No problem, glad to help.
There it is, great job!