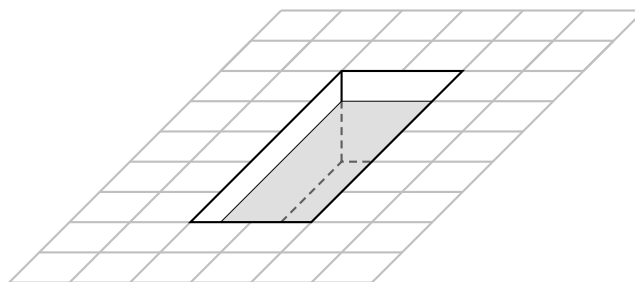


Name: \_\_\_\_\_

QUIZ 7 ♠

MATH 201  
February 8, 2024

1. A swimming pool is 5 meters long, 2 meters wide, and 3 meters deep. It is filled with water to a depth of 2 meters. (So the water level is 1 meter below ground level.) How much work is required to pump all the water to ground level? (Once pumped out, water does not flow back into the pool!)



Relevant Facts:

The density of water is 1000 kg per cubic meter.

Acceleration due to gravity: 9.8 meters per second per second.

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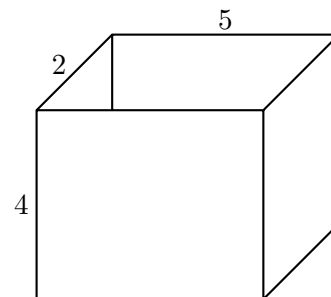
Name: \_\_\_\_\_

QUIZ 7  $\diamond$

MATH 201  
February 8, 2024

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1. A box-shaped tank is 5 meters long, 2 meters wide and 4 meters tall, as shown below. The tank is filled to the top with water. How much work is required to pump all the water to a height of 1 meter above the top of the tank?



Relevant Facts:

The density of water is 1000 kg per cubic meter.

Acceleration due to gravity: 9.8 meters per second per second.

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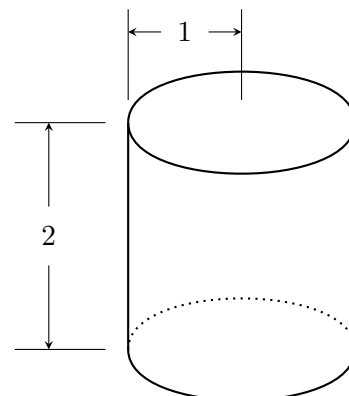
Name: \_\_\_\_\_

QUIZ 7 ♣

MATH 201  
February 8, 2024

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1. A cylindrical tank of radius 1 meter and height 2 meters is filled to the top with water. How much work is required to pump all the water to a height of 3 meters above the top of the tank?



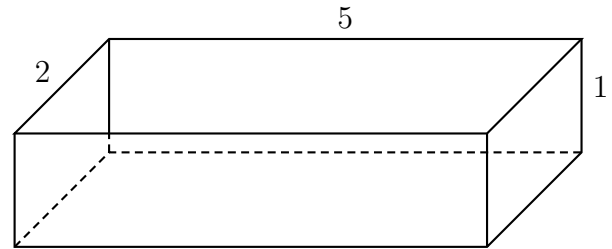
Relevant Facts:

The density of water is 1000 kg per cubic meter.

Acceleration due to gravity: 9.8 meters per second per second.

Name: \_\_\_\_\_

1. A swimming pool, completely full of water, is 5 meters long and 2 meters wide and 1 meter deep. How much work is required to pump all the water to ground level? (Once pumped out, water does not flow back into the pool!)



Relevant Facts:

The density of water is 1000 kg per cubic meter.

Acceleration due to gravity: 9.8 meters per second per second.