A 56.0kg ice skater spins about a vertical axis through her body with her arms horizontally outstretched, making 2.50 turns each second. The distance from one hand to the other is $\mathbf{1 . 5 m}$. Biometric measurements indicate that each hand typically makes up about $1.25 \%$ of body weight. Part A) horizontal force must her wrist exert on her hand $F=150 \mathrm{~N}$

Express the force in part (a) as a multiple of the weight of her hand?

Answer:
Net force $=129.4$, Force as multiple of weight of her hand $=18.84$
Explanation:
Given Data:
Total body weight $=56.0 \mathrm{~kg}$
no. of turns $=2.5 /$ second
hand to hand distance $=1.5 \mathrm{~m}$;
weight of hand $=1.25 \%$ of body weight ;
Solution:
mass of hand $=* 56=0.7 \mathrm{~kg}$;
radius $=\mathrm{d} / 2=1.5 / 2=0.75 \mathrm{~m} \quad ;$

Now we need to find velocity, as we know that velocity can be calculated by dividing distance by time
$\mathrm{v}=\mathrm{d} / \mathrm{t}==11.775 \mathrm{~m} / \mathrm{s}$ or $12 \mathrm{~m} / \mathrm{s}$;
a.

The formula to calculate force is given as
$\mathrm{F}=\mathrm{mv}^{2} / \mathrm{r}=\left(0.7^{*} 11.775^{2}\right) / 0.75=129.4 \mathrm{~N}$
b.

To calculate force as multiple of weight on her hand, we need to calculate the gravitational force W on her hand first.
$\mathrm{W}=\mathrm{gm}=9.81 * 0.7=6.867 \mathrm{~N}$
Now the wieght on her hand can be represented by
$=129.4 / 6.867=18.84$

Find the difference between $x+5$ and $2 x+3$
Debate on youth of today are to blame for not taking education seriously?
Which type of twins are likely to interact with each other in the womb a. Non-identical
b. Identical
c. neither

Why was the power to veto laws significant? It gave the people of Rome the power to reject governmental decisions.
It gave elected officials the power to reject laws made by the senate.
It gave the patricians more power over laws made by the senate.
It gave the consuls the power to carry out the laws in the republic.
What is inflation? a.)an increase in the supply of currency that reduces the currency's value
b.) a demand for more goods than can be met by production
c.) an increase in unemployment due to a serious recession
d.) an excess of goods that results in lower prices

An amusement park charges an admission fee of 30 dollars per person. The cost, C (in dollars), of admission for a group of people is given by the following. $=$ C 30 p What is the cost of admission for a group of 2 people?
In circle $P, P A$ is a radius and $A B$ is a tangent segment. Which statement must be true?

1. $\mathrm{PA}=\mathrm{PB}$
2.PAB is an acute angle.
3.PA = BA
4.PAB is a right angle

In 1987 the cooperation among the National Association for the Advancement of Colored People (NAACP), the National Organization for Women (NOW), and the American Civil Liberties Union (ACLU) to defeat Robert Bork's nomination to the United States Supreme Court was an example of:
Considering only the breakdown of the initial glucose molecule, total atp yield of aerobic glycolysis vs anaerobic glycolysis?
Joshua is the place kicker for his college football team. Last season he kicked 42 times and never missed. Each field goal scored 3 points, and each extra point scored 1 point, for a total of 86 points. How many field goals did Joshua kick
The formula for the circumference of a circle is $C=2 r$, where $r$ is the radius and $C$ is the circumference. The equation solved for $r$ is $r=$. Find the radius of a circle that has a circumference of 16 .
The measured response of an experiment, the data collected is the ... A:independent variable

## B:dependent variable

(Wrong subject ik)
When you are sick and have taken antibiotics to kill the bacteria it will kill all of the bacteria including the bacteria in your intestine. Why is the loss of the bacteria in your intestine not beneficial to you? What kind of a relationship is that and how does eating yogurt help you?
Why do you think the trenches were formed in a zig-zag pattern
Camille Harris has a checking account with the Bank of the NorthWest. She earns $0.5 \%$ per month. If she maintains a balance of $\$ 1200$, her checks are free, but if she goes under that amount, each check will have a two cent charge on it. For balances under $\$ 600$, there is a service fee of $\$ 4$ per month. Use the equation $I=$ $\mathrm{rB}-\mathrm{sx}-\mathrm{f}$ to determine her earnings on the account if she has a balance of $\$ 1500$ and she writes 25 checks. A. $\$ 3.00$
B. $\$ 3.50$
C. $\$ 7.00$
D. $\$ 7.50$

Change the decimal 4.1 into a fraction
What is the answer to $2 y-4 x=-18$ ?
The melting point of sodium is $97.8^{\circ} \mathrm{C}$ The melting point of potassium is $63.65^{\circ} \mathrm{C}$ how much higher is the melting point of sodium

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