

How Did Everybody Find Out About the New Corduroy Pillow Covers ?

Solve each problem below. Find your answer in the answer column and notice the letters next to it. Write these letters in the boxes at the bottom of the page that contain the number of that exercise.

① For rectangles with the same area, the length varies inversely as the width. One rectangle has a length of 12 cm and a width of 5 cm. Find the length of another rectangle with the same area whose width is 4 cm.

_____ cm

② The current in an electrical circuit varies inversely as the amount of resistance in the circuit. The current is 10 amps when the resistance is 24 ohms. Find the current when the resistance is 30 ohms.

_____ amps

③ The cost per person to rent a mountain cabin is inversely proportional to the number of people who share the rent. If the cost is \$36 per person when 5 people share, what is the cost per person when 8 people share?

\$ _____

④ The volume of a gas varies inversely as the pressure. A helium-filled balloon has a volume of 21 m³ at sea level, where the pressure is 1 atmosphere. The balloon rises to an altitude where the pressure is 0.7 atmospheres. What is its volume?

_____ m³

⑤ The number of chairs on a ski lift is inversely proportional to the distance between them. A lift has 70 chairs when they are spaced 24 m apart. If 80 evenly-spaced chairs are used on the lift, how much space will be left between them?

_____ m

⑥ For piano wires under the same tension, the number of vibrations per second (frequency) of each wire is inversely proportional to the length of the wire. A wire 0.75 m long vibrates 480 times per second. How long is a wire that vibrates 300 times per second?

_____ m

⑦ The time it takes to fly from Los Angeles to New York varies inversely as the speed of the plane. If the trip takes 6 h at 900 km/h, how long would it take at 800 km/h?

_____ h



DEH	1.2
EWS	36
MA	15
RTU	7.2
TH	22.50
EY	21
RKS	1.35
EA	8
DLI	6.75
IS	19
NES	30
IT	24.50

3	3	5	5	1	1	6	6	6	2	2	7	7	7	4	4	4
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