

Name _____

Date _____

Popcorn Machine

A few students want to raise twenty dollars to purchase a popcorn machine for the school cafeteria. The students decide to start a desk cleaning service. The students will charge twenty-five cents for each desk they clean. Three friends have their desks cleaned first period. Six friends have their desks cleaned second period. Nine friends use the service for third period. If this pattern continues, how many friends will come during the eighth and final period of the day? Do the students raise enough money in one day to buy the popcorn machine? Show all of your work. Use illustrations and/or charts to help you solve the problem.



How many friends will come during the eighth and final period of the day? _____

Do the students raise enough money in one day to buy the popcorn machine? _____



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Answer Key

A few students want to raise twenty dollars to purchase a popcorn machine for the school cafeteria. The students decide to start a desk cleaning service. The students will charge twenty-five cents for each desk they clean. Three friends have their desks cleaned first period. Six friends have their desks cleaned second period. Nine friends use the service for third period. If this pattern continues, how many friends will come during the eighth and final period of the day? Do the students raise enough money in one day to buy the popcorn machine? Show all of your work. Use illustrations and/or charts to help you solve the problem.

Period	Friends	Total money
1	3	.75
2	6	2.25
3	9	4.50
4	12	7.50
5	15	11.25
6	18	15.75
7	21	21.00
8	24	27.00

How many friends will come during the eighth and final period of the day? 24

Do the students raise enough money in one day to buy the popcorn machine? yes

