



Name _____ Class _____ Date _____

Archimedes hopped into the bath one day and because he was so huge all the water flowed over the edge of the bath. Since Archimedes flooded out the bathroom, Mrs. Archimedes has been on at him about his weight. She has suggested he counts the kilojoules in his food and tries to reduce his intake. Archimedes is going to aim for a daily kilojoule intake of 10 000 kj. At this rate and with regular exercise he should lose approximately one kilo a week.

According to his height and frame he should weigh 75 kg. Currently Archimedes weighs 138 kg.

1. If he keeps up with regular exercise and follows the diet, when can he expect to reach his ideal weight?
2. Archimedes thinks that if he starts doing more exercise he might be able to still lose the weight but also enjoy some of his food luxuries. From the table below, what combinations of activities can Archimedes “swap” for these luxury items?

Kilojoule Counter		Kilojoules used per minute:	
1. Two scoops of vanilla ice cream	800 kJ	Jogging	20

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vi.

vii.

Describe two ways that Archimedes can burn off 2000 kilojoules.....

What is the slowest way he can use up 1500 kilojoules?

Did you know?

Celery has hardly any kilojoules in it because it mostly consists of water. When you eat a stick of celery you are burning off more kilojoules through chewing and swallowing than the celery is worth! If you add peanut butter you have another story! Find out how many kilojoules you would be adding!



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According to his height and frame he should weigh 75 kg. Currently Archimedes weighs 138 kg.

1. If he keeps up with regular exercise and follows the diet, when can he expect to reach his ideal weight? **63 weeks or approximately 1 year and 2 & a half months.**
2. Archimedes thinks that if he starts doing more exercise he might be able to still lose the weight but also enjoy some of his food luxuries. From the table below, what combinations of activities can Archimedes “swap” for these luxury items?

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vii.

Describe two ways that Archimedes can burn off 2000 kilojoules.....

Answers will vary.

What is the slowest way he can use up 1500 kilojoules?

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