Shooloo-Healthy Eating Math Story Contest

Sample Word Problems

Grades 3 – 12

Submit your own word problems about healthy-eating and win great prizes at https://fun.shooloo.org/contest. Check out over 4,000 word problems aligned with the Common Core at https://fun.shooloo.org/common-core-math-word-problems.

Sample Problem Index

Grade 3

For the Smartboard view with which you can hide/unhide the answer, log into Shooloo and then click on https://fun.shooloo.org/common-core-math-word-problems/4004/teacher_view

SHOOLOO Home Contest CCSS Videos Alerts 21 Teacher Posts Friends Account

Image courtesy of scontent-a-iad.xx.fbcdn.net.

Revise Invite Details Class Assign

Correct

Question (original):

Liz eats a snack every day. If she eats candy, she usually feels hungry again 40 minutes later. If she eats granola, it usually takes her an hour longer to feel hungry again than eating candy, because granola has more fiber and protein than candy. Liz had some granola at 10:10 am today. Around what time will she feel hungry again?

Answer (original):

Amount of time it takes Liz to feel hungry again after eating granola = 1 hour + 40 minutes

10:10 + 1 hour + 40 minutes = 11: 50 am

So Liz will feel hungry again at 11:50 am after eating some granola at 10:10 am.

CCSS: 3.MD.1 - Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes.

Related Posts in the Same CCSS Standard: #127 | #134 | #125 | #94 | #179 | #236 | #249 | #301 | #306 | #584 | #338 | #915 | #917 | #1354 | #929 | #1102 | #912 | #184 | #257 | #852 | #1636 | #1687 | #294 | #295 | #3215 | #3255 |

Grade 4

For the Smartboard view with which you can hide/unhide the answer, log into Shooloo and then click on https://fun.shooloo.org/common-core-math-word-problems/3876/teacher_view

SHOOLOO Home Contest CCSS Videos Alerts 26 Teacher Posts Friends Account

Image courtesy of res.mindbodygreen.com.

Revise Invite Details Class Assign

Correct

Question (original):

Jen used to drink two bottles of 20-oz soda every day. Although she exercised regularly, she kept gaining weight. Then she switched from drinking soda to drinking water, and she started losing weight. Her doctor told her that by stopping drinking soda, she essentially cut a lot of sugar out of her diet. One 20-oz soda has 240 calories. One pack of table sugar has 15 calories. How many packs of sugar has Jen cut out of her daily diet by switching from soda to water?

Answer (original):

Calories in two bottles of soda = 2 x 240 = 480 calories

Equivalent packs of sugar = 480 / 15 = 32 packs of sugar

Jen essentially cut 32 packs of table sugar out of her daily diet by switching from soda to water.

CCSS: 4.OA.3 - Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Related Posts in the Same CCSS Standard: #655 | #374 | #1095 | #339 | #228 | #95 | #387 | #3858 | #398 | #826 | #570 | #530 | #832 | #3829 | #1306 | #840 | #469 | #1115 | #821 | #35 | #252 | #901 | #226 | #3061 | #130 | #1110 | #1116 | #1161 | #1194 |

Grade 5

For the Smartboard view with which you can hide/unhide the answer, log into Shooloo and then click on https://fun.shooloo.org/common-core-math-word-problems/3874/teacher_view

SHOOLOO Home Contest CCSS Videos Alerts 26 Teacher Posts Friends Account

Image courtesy of fbcdn-sphotos-c-a.akamaihd.net.

Revise Invite Details Class Assign

Correct

Question (original):

Annie used to over-eat at dinner and gained a lot of weight. Her mom learned from WebMD that if Annie eats a light and healthy snack in the afternoon, then she wouldn't be so hungry at dinner, and she could reduce the total amount of calories everyday by 1/10. Also if Annie drinks only water instead of one 20-oz orange soda a day, she would take in 240 fewer calories. Annie used to eat 1,600 calories a day. If she stops drinking soda and starts eating a healthy snack in the afternoon, what fraction of the total calories could she reduce?

Answer (original):

Fraction of calories reduced from stopping drinking soda = 240 / 1600 = 3/20

Fraction of calories reduced from eating snacks = 1/10

Total fraction of calories reduced = 3/20 + 1/10 = 3/20 + 2/20 = 5/20 = ¼

Annie could reduce her daily calories by ¼ if she starts eating a healthy snack and stops drinking soda.

CCSS: 5.NF.2 - Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.

Related Posts in the Same CCSS Standard: #5 | #546 | #637 | #642 | #70 | #227 | #389 | #3963 | #3077 | #3130 | #3131 | #2169 | #3179 | #3184 | #3183 | #3182 | #2090 | #2252 | #2343 | #2344 | #2508 | #2520 | #2519 | #2581 | #2606 | #3547 | #1394 | #3546 |

Grade 6

For the Smartboard view with which you can hide/unhide the answer, log into Shooloo and then click on https://fun.shooloo.org/common-core-math-word-problems/3790/teacher_view

SHOOLOO Home Contest CCSS Videos Alerts 26 Teacher Posts Friends Account

Image courtesy of c1eatdrinkbettercom.wpengine.netdna-cdn.com.

Revise Invite Details Class Assign

Correct

Question (original):

According to the New York City Department of Health, a 20-oz bottle of soda has the same amount of calories as 16 packs of sugar. Each pack of sugar has 15 calories. Sarah weighs 110 lbs and she burns 60 calories for every mile she walks, and it takes her 20 minutes to walk one mile. If Sarash just drank a 20-oz soda, about how many minutes does she have to walk to burn off all the calories she just drank?

Answer (original):

(total calories / calories burnt per mile) x minutes to walk one mile = time to walk off the calories

total calories from 1 bottle of soda = 16 packs of sugar x 15 calories per pack = 240 calories

240 calories / 60 calories x 20 minutes = 80 minutes.

So Sarash has to walk 80 minutes to burn off all the calories from drinking one bottle of soda.

CCSS: 6.RP.3 - Use ratio and rate reasoning to solve real-world and mathematical problems.

Related Posts in the Same CCSS Standard: #1316 | #123 | #30 | #253 | #863 | #23 | #1323 | #129 | #3074 | #3290 | #499 | #1861 | #1870 | #1787 | #1795 | #1792 | #1790 | #1786 | #1813 | #1867 | #1868 | #1865 | #1925 | #1926 | #1858 | #1860 | #1864 | #1863 | #1873 | #1929 | #1917 | #1943 | #2025 | #1997 | #3118 | #3490 | #2251 | #2464 | #2722 | #2882 | #3262 | #3026 | #3043 | #3582 | #3588 | #3653 | #3667 | #3739 | #3843 | #3871 | #1789 | #1874 |

Grade 7

For the Smartboard view with which you can hide/unhide the answer, log into Shooloo and then click on https://fun.shooloo.org/common-core-math-word-problems/3870/teacher_view

SHOOLOO Home Contest CCSS Videos Alerts 26 Teacher Posts Friends Account

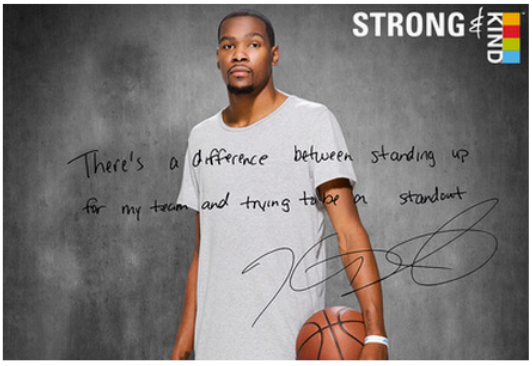

Image courtesy of www.strongandkind.com.

Revise Invite Details Class Assign

Correct

Question (original):

Kevin used to fall asleep in class after eating sugary snacks. He learns that snacks that are low in sugar but high in protein and fiber would keep him feel satisfied while preventing sugar crashes. He finds the following nutrition information on two different snack bars. How do the two bars compare in protein, fiber, and sugar contents if Kevin converts them to the equal serving size of 100 grams (round to 1 decimal point)?

Nutrition per serving	KIND bar	Candy bar
Serving size (grams)	40	52.7
Calories	200	250
Fiber (grams)	3	1
Sugar (grams)	10	27
Protein (grams)	7	4

Answer (original):

To convert to 100 grams of serving, each nutrition value of the Kind bar should be multiplied by a factor of 2.5 (1/40 x 100 = 2.5), and that of the Candy bar should be multiplied by a factor of 1.90 (1/52.7 x 100 = 1.90), so the nutrition values after conversion are:

Nutrition per serving	KIND bar	Candy bar	Difference
Serving size (grams)	100	100	0
Calories	500	474.4	25.6
Fiber (grams)	7.5	1.9	5.6
Sugar (grams)	25	51.2	-26.2
Protein (grams)	17.5	7.6	9.9

Per 100 grams of serving, a Kind bar has 5.6 grams more fiber, 26.2 grams less sugar, and 9.9 grams more protein than a candy bar. In other words, a Kind bar has almost four times of fiber, half of the sugar, and more than twice of the protein content as a candy bar.

CCSS: 7.RP.2 - Recognize and represent proportional relationships between quantities.

Related Posts in the Same CCSS Standard: #1340 | #1026 | #1034 | #1342 | #1259 | #1265 | #1174 | #1179 | #1207 | #1397 | #1420 | #1421 | #1428 | #1413 | #1422 | #1415 | #1424 | #1758 | #1765 | #2126 | #3197 | #2271 | #3328 | #3744 | #1313 |

Grade 8

For the Smartboard view with which you can hide/unhide the answer, log into Shooloo and then click on https://fun.shooloo.org/common-core-math-word-problems/4005/teacher_view

SHOOLOO Home Contest CCSS Videos Alerts 21 Teacher Posts Friends Account

Image courtesy of www.ucsf.edu.

Revise Invite Details Class Assign

Correct

Question (original):

The American Heart Association (AHA) recommends that teenagers eat no more than 8 teaspoons of processed sugar per day to prevent obesity and related diseases. John did some calculation and found the following linear relationship between his bodyweight and the amount of processed sugar he eats above the AHA recommended limit:

W(x) = 140 + 1.5x, where W stands for his body weight in pounds, 140 is his ideal body weight, and x stands for teaspoons of processed sugar he eats above the AHA limit.

If John eats 35 teaspoons of processed sugar every day, how much would be his body weight?

Answer (original):

X = 35 – 8 = 27 teaspoons of sugar above the AHA limit

W(x) = 140 + 1.5 x 27 = 140 + 40.5 = 180.5 pounds

John's body weight would be 180.5 pounds

CCSS: 8.F.4 - Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

Related Posts in the Same CCSS Standard: #3655 |