

Quirky Percent, Rates & Ratios Problems

Type in your answers below without showing your work or units/symbols – just the numbers and decimal points.

- 1) Darryl ate 32 mini chocolate eggs in 5 minutes. What is his unit rate? _____ eggs/minute. (do not round)
- 2) Jolene is having a bowl of Cheerios with blueberries in it. If the ratio of Cheerios to blueberries is 12:5, and there are 35 blueberries, how many Cheerios are in the bowl? _____ Cheerios.
- 3) When Maria Paraskeva got married in August 2018, she broke the Guinness World Record title for the longest wedding veil ever. It was 22,843 feet long, or about as long as 63.5 football fields! If you wanted to break her record by 4%, how much longer would your veil be than hers? _____ feet. (do not round)
- 4) Bee hives have 'guard bees' that stay by the entrance and sniff the bees that come in. If there's a rogue bee from another hive trying to steal some nectar, the guard bee will bite and even sting the intruder. So let's say Billy the Bee catches 13 intruders out of the 454 bees that entered the hive yesterday. What percent of the bees were intruders? _____ % (round to the near whole number)
- 5) Lachanophobia is the fear of eating vegetables. If there are 360 students at Turnbull School and 28% believe they are Lachanophobic, how many students is that?
= _____ students. (round to the near whole number)
- 6) Anacondas are considered the largest type of snake. They can weigh as much as 595 pounds and up to 30 feet in length! Yowza! If the ratio of weight to length is 595:30, and you find a young Anaconda that's 6 feet long, how much can you expect it to weigh? _____ pounds.
- 7) According to thefactsite.com, 7% of American adults believe that chocolate milk comes from brown cows. If the 7% represents 16.4 million American adults, how many American adults are there in total?
= _____ American adults (round to the nearest whole number)
- 8)  Umm... 'fun' fact. Billy goats urinate on their own heads to smell more attractive to females. If 20.5% of female goats interviewed confirmed this increases a suitor's attractiveness to them, and there are 230 goats, how many successfully increased their attractiveness through this practice? = _____ goats (round to the nearest whole #)
- 9) The average human produces between 1 to 2 liters of saliva each day, which works out to approximately 51,100 litres of saliva during a 70 year lifespan. That's more than enough saliva to fill two swimming pools! Gross!! Using the 51,100 litres in 70 years numbers, how many litres would someone produce in 94 years at the same rate? _____ litres in 94 years. (round to the nearest whole number)
- 10) In 2017 more people were killed from injuries caused by taking a selfie than by shark attacks. There was only 5 deaths due to shark attacks but 700% more deaths caused by injuries taking selfies. How many deaths were there due to injuries occurred while taking a selfie in 2017? _____ deaths



Questions inspired by random facts found on thefactsite.com

11) Fun fact: a lion's roar can be heard from 8 km away. How many decibels loud are lions' roars if lawn mowers are just 4% as loud as lions at 4.56 decibels? _____ decibels.

12) Recycling five glass jars saves enough energy to watch television for 15 hours. At that rate, how many jars would you need to recycle to power your television for 24 hours? _____ jars.

13) There is a total of 1,710 steps in the Eiffel Tower, which is 108 stories tall. At that rate, if they were to add 5 more stories to the Eiffel Tower, how many more steps would there be? _____ steps. (round to the nearest whole number).

14) You can currently buy this amazing Godzilla garden gnome on Amazon.ca for \$32.99. If it goes on sale for 27% off, and then 13% tax is applied, how much would this soon-to-be family heirloom cost altogether?

Discount = \$ _____ New Sale Price = \$ _____

Tax on Sale Price = \$ _____ Total Cost = \$ _____

~~~~ Round all figures to the nearest cent (ex \$14.74) ~~~~



15)



Stressed about the Covid-19 situation? Time to get yourself a nice, relaxing roast beef sandwich bath soak, currently found on Amazon.ca for a measly \$23.68. So let's create a math scenario around purchasing this item.

Fawn borrows \$25 from the bank to buy herself a roast beef sandwich bath. The bank charges her 16% interest per year. Calculate the difference between the amount she'd owe the bank after 3 years under simple interest vs compound interest.

Total simple interest after 3 years = \$ \_\_\_\_\_

Total simple interest plus the amount she borrowed = \$ \_\_\_\_\_

Total compound interest after 3 years = \$ \_\_\_\_\_

Total compound interest plus the amount she borrowed = \$ \_\_\_\_\_

### Having trouble understanding simple vs compound interest?

- **Simple interest** = you pay interest each year only on the original amount you borrowed.
  - Example: If I borrowed \$20 and interest is 10%, I owe an additional \$2 interest each year until I pay it back.
- **Compound interest** = you pay interest each year on the new total amount you owe the bank at the end of each year (i.e. the original amount you borrowed plus any interest that's accumulated to date).
  - Example: If I borrowed \$20 and interest is 10%, I owe 10% interest on \$20 after the first year (\$2.00), 10% interest on \$22 after year two (\$2.20), 10% interest on \$24.20 after the second year (\$2.42).

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