Microsoft

Data Hack 2018 Microsoft Math Teacher Challenge

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About Me

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START-UP NATION

DEVELOPER
ADVOCATE

Open Source

Experiences Are Only As Good
As The Brains Behind them
Ascend+

Math Teacher Challenge

Challenge Goal

- Build a model that can perform automatic problem solving, written in natural language.

Example Problem

P1: *What's 25% off $139.99?* **Equation**: (1-0.25)*139.99 = x
P2: *How much will the ipod now be if the original price is $260 and I get 10% discount?* **Equation**: (1-0.1)*260 = x
Template: $(1-n_1)*n_2 = x$
P3: *I bought something for $306.00 dollars. I got a 20% discount. What was the original price?* **Equation**: (1-0.2)*x = 306
Template: $(1-n_1)*x = n_2$

Figure 1: Math Word Problem Examples.


```
{
  "id": "algebra.com.117395",
  "index": 1043,
  "text": "one number is 11 more than another number. Find the two numbers if three
times the larger exceeds four times the smaller number by 4.",
  "sources": "algebra.com.117395",
  "equations": [
    "unkn: x,y",
    "equ: x=y+11",
    "equ: 3*x=4*y+4"
  ],
  "ans": "{40;29}",
  "ans_simple": [
    40,
    29
  ]
}
```


Figure 1. JSON format of an example problem

Challenge Rules

- Participants must be able to show code, demo their models and explain their approaches.

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- Up to 4 participants on a team.

Competition Prize

Questions??

Microsoft

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