



Data Hack 2018 Microsoft Math Teacher Challenge

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About Me

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START-UP NATION



Open Source

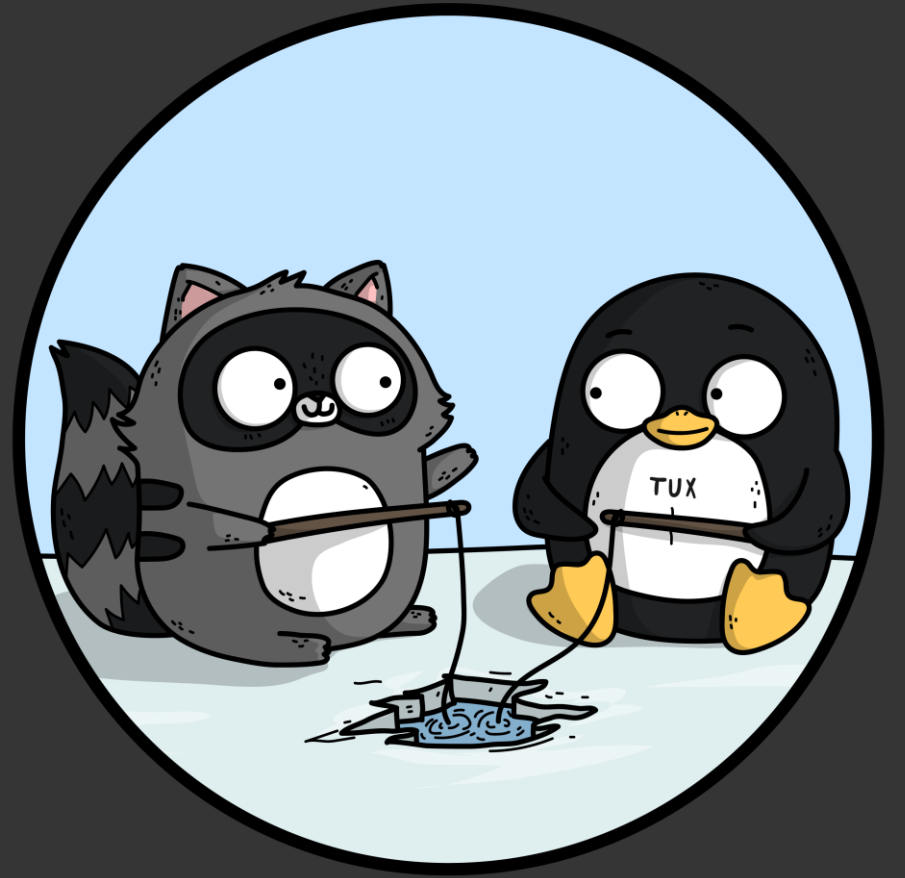




Experiences Are Only As Good
As The Brains Behind them

Microsoft
Ascend+
微软技术先锋计划
开发训练营

Math Teacher Challenge



Challenge Goal

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



Example Problem

P1: What's <u>25% off</u> \$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 <u>10% discount</u> ? Equation: $(1-0.1)*260 = x$
Template: $(1-n_1)*n_2 = x$
P3: I bought something for \$306.00 dollars. I got a <u>20% discount</u> . 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

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- Up to 4 participants on a team.

Competition Prize



Questions??



