Hunting for MIT's Newest Talent

"Hello all, and welcome to the latest episode of Hunting for MIT's Newest Talent (or HMNT, for short). Today, we're joined by our four hosts (all of which are MIT alumni): Tony Stark, Salman Khan, Richard Feynman, and Buzz Aldrin!

"So far this season, no act has been able to impress all four of the judges. They each have their own particular tastes, but no one has been able to put those together to come up with an act that will blow them all away. But who knows? Tonight may be the night that history is made."

This packet contains four puzzles, each corresponding to one of the judges. Each puzzle will somehow solve to a short word or phrase. After you've solved all four puzzles, you'll be given the "metapuzzle," which combines the answers to all of the previous puzzles to give you the ultimate act that will impress all four judges.

As you solve the puzzles, you may check your answers with one of us. If at any point you are stuck on a puzzle, you may ask us for a hint. Every puzzle starts with a few sentences known as the "flavortext," which generally has clues on how to solve the puzzle. You may use the internet to help you with some of the clues. No knowledge of America's Got Talent is required to solve any of these puzzles. Best of luck!

| Геат Name: | | _ |
|------------------------|-------------|---|
| Tony Stark | Salman Khan | |
| Richard Feynman | Buzz Aldrin | |
| META: The Ultimate Act | | |

Tony Stark

"Hi, Tony here, a.k.a. Iron Man. Some random superheros that I have never heard of decided to steal my old suits! Fortunately I can use the suits' built-in system to index their identity and track them down by their names, but I need to figure out why they were able to get away with this in the first place."

- Anna's suit number is exactly half of that of David's.
- Captain Canada stole a higher-numbered suit than Emily.
- Carl and Miraculous Woman stole two different suits whose numbers differ by 1.
- Carl is neither Civil Hero nor Captain Canada.
- Knife Runner's suit number is not a perfect square.
- Miraculous Woman is neither Anna nor Emily.
- Silver Arrow stole the lowest numbered suit, while Civil Hero stole the highest numbered suit.
- The suit that Bobby stole is prime-numbered.
- The suits that were stolen have consecutive numbers, starting from 1.



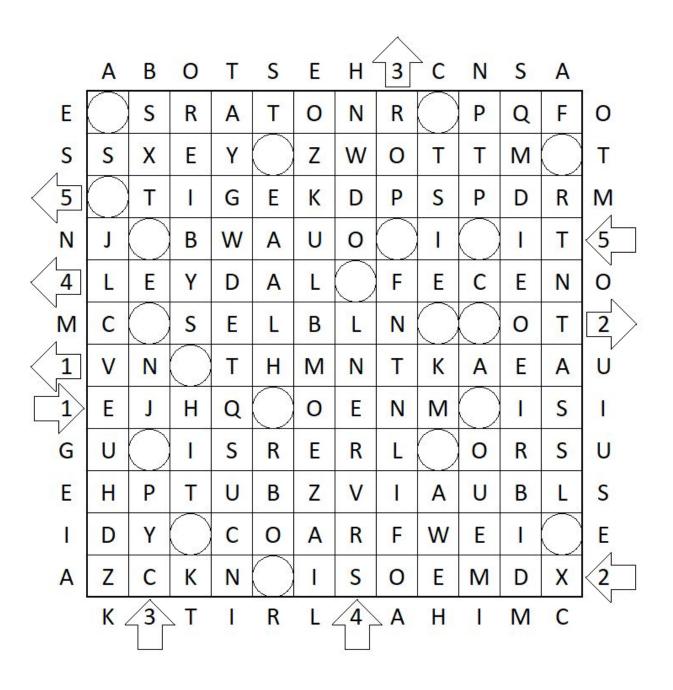
Salman Khan

"Need to work on your arithmetic skills? Here are some exercises! Maybe they'll translate to something useful 1 dAy."

```
1+(7*4-4*2)
2*12-5
(2*2+2*3)-5
(1+4*4+1)-2
2+3
(32/2-1)-(1*6+8)
20-(3-3/3-1)
2*((2*4-1)+1)-3
(2*2+1)-1
(4*9-7*3)-1
5^2*3/5
2*11-2
4^(1+2*2-1)/16
5*1+1*2/2-1
(2*5+5)-2
3+(2*8-5*3)
2+(5-2*4+2)
12+(4^3+20)/12
```

Richard Feynman

"You see, according to quantum mechanics, light can interfere with other light, or even with itself. Here, have some double-sided mirrors and observe them!"



Buzz Aldrin

"The uni-verse is always getting bi-gger, which sometimes makes it tri-cky to connect the dots."



