

50:50



# Welcome to

# *Who Wants to*

# *be a Millionaire*

*4<sup>th</sup> Grade Forces in Motion*

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



**Another**  
**Mark E. Damon**  
**Presentation**

**© 2000 - All rights Reserved**

**[markedamon@hotmail.com](mailto:markedamon@hotmail.com)**



15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



When a ball is thrown into the air, it falls back to the ground.  
What causes this to happen?

**D:** the force of gravity on the ball

50:50



**A:** the round shape of the ball

**B:** the way the ball is thrown

**C:** the force of the air against the ball

**D:** the force of gravity on the ball

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



# Which simple machine is used to hold objects together?

**C: screw**

50:50



**A: hammer**

**B: pulley**

**C: screw**

**D: wedge**

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100





**Michael was pulling his wagon on the sidewalk. What should he do to keep the wagon moving?**

**B: Apply a force to the wagon.**

50:50



**A: Walk behind the wagon.**

**B: Apply a force to the wagon.**

**C: Put a weight in the wagon.**

**D: Walk on the side of the wagon.**

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



**Jill shoots a basketball but it falls short of the hoop. Which should Jill do to make a score from the same place?**

**C:** use more force on the ball

50:50



**A:** use less force on the ball

**B:** use more pull on the ball

**C:** use more force on the ball

**D:** use less energy on the ball

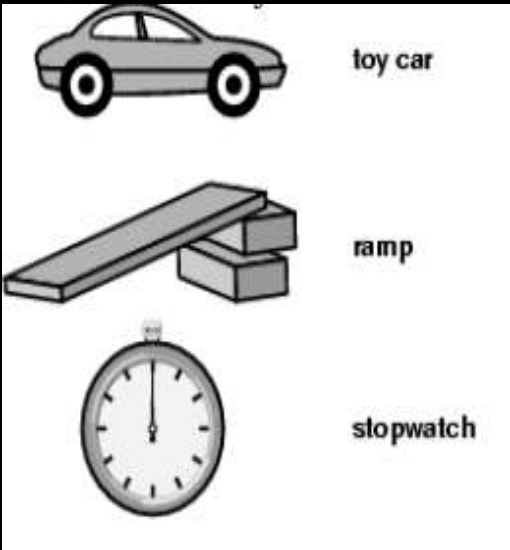
15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



*Look at the objects.*

Which questions could you answer using these objects?



**A:** How fast does the toy car roll down the ramp?

50:50



15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

**A:** How fast does the toy car roll down the ramp?

**B:** How far does the toy car roll off the ramp?

**C:** How heavy is the toy car?

**D:** How tall is the ramp?

# Congratulations!

**You've Reached  
the \$1,000  
Milestone!**



15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



**A falling leaf, a dropped ball,  
and water dropping from a  
faucet are all examples of the  
effect of what type of force?**

**C: gravity**

50:50



**A: weight**

**B: mass**

**C: gravity**

**D: push**

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



**Complete this sentence:**

**A change in force always brings about a change in \_\_\_\_\_.**

**D: position**

50:50



**A: energy**

**B: force**

**C: machines**

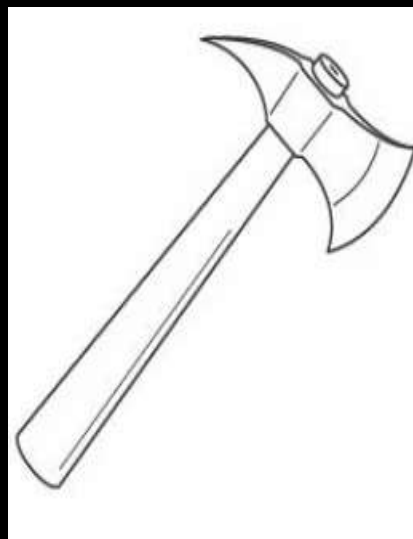
**D: position**

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



The head of an axe is wide at one end and pointed at the other to help cut or trim trees. The axe head is an example of \_\_\_\_\_.



**C: a wedge**

50:50



**A: a pulley**

**B: a wheel and axle**

**C: a wedge**

**D: an inclined plane**

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



**Eddie and his daddy are building a tree house. Which machine will help them lift the materials up into the tree?**

**B: pulley**

50:50



**A: lever**

**B: pulley**

**C: wedge**

**D: wheel**

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



# Why can astronauts jump higher on the Moon than on Earth?

**C:** The Moon's gravity is weaker than Earth's.

50:50



**A:** There is more oxygen on the Moon.

**B:** Their pressurized suits help them.

**C:** The Moon's gravity is weaker than Earth's.

**D:** The warm temperature on the Moon gives the astronauts more energy.

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



# Congratulations!

**You've Reached  
the \$32,000  
Milestone!**



15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



If you are on a seesaw and want your friend to go down, use a force that is a \_\_\_\_\_.

**A: push**

50:50



**A: push**

**B: pull**

**C: lever**

**D: pulley**

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



# Which example of a simple machine is a lever?

**D: pliers**

50:50



**A: screw**

**B: pulley**

**C: ramp**

**D: pliers**

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100



This balance is a simple machine called \_\_\_\_\_.



A: a lever

50:50



A: a lever

B: a pulley

C: a wheel and axle

D: an inclined plane

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100





# Which answer lists only simple machines?

**B:** lever, screw, wheel

50:50



**A:** screw, car, tires

**B:** lever, screw, wheel

**C:** television, computer, lever

**D:** lawn mower, edger, leaf blower

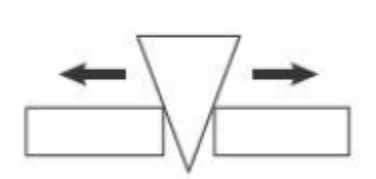
15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

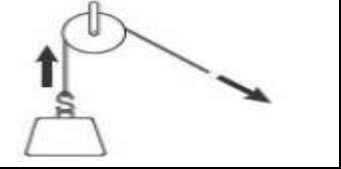


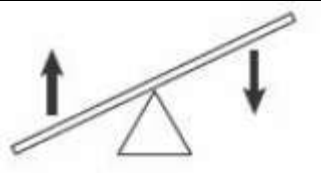
# Enter \$1,000,000 Question

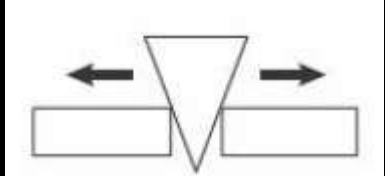
15	●	\$1 Million
14	●	\$500,000
13	●	\$250,000
12	●	\$125,000
11	●	\$64,000
10	●	\$32,000
9	●	\$16,000
8	●	\$8,000
7	●	\$4,000
6	●	\$2,000
5	●	\$1,000
4	●	\$500
3	●	\$300
2	●	\$200
1	●	\$100

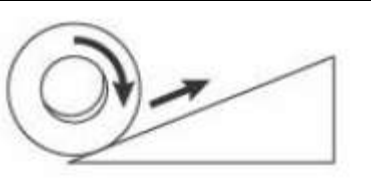
C: 

50:50  

A: 

B: 

C: 

D: 

**YOU WIN \$1  
MILLION DOLLARS!**

