

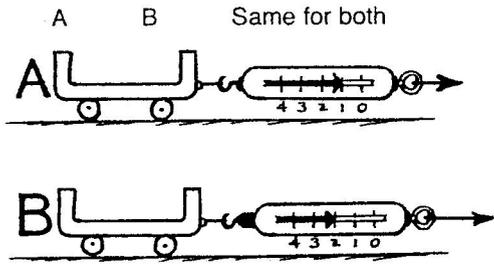
CONCEPTUAL **Physical Science** PRACTICE SHEET

**Chapter 2: Newton's Laws of Motion**

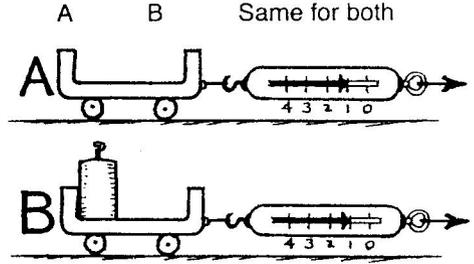
**A Day at the Races with Newton's Second Law:  $a = F/m$**

In each situation below, Cart A has a mass of **1 kg**. The mass of Cart B varies as indicated. Circle the correct answer (A, B, or Same for both).

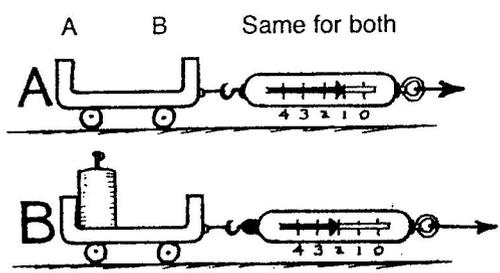
1. Cart A is pulled with a force of **1 N**. Cart B also has a mass of **1 kg** and is pulled with a force of **2 N**. Which undergoes the greater acceleration?



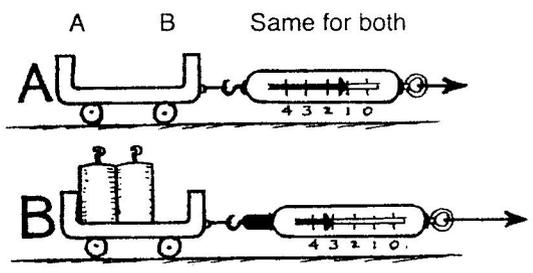
2. Cart A is pulled with a force of **1 N**. Cart B has a mass of **2 kg** and is also pulled with a force of **1 N**. Which undergoes the greater acceleration?



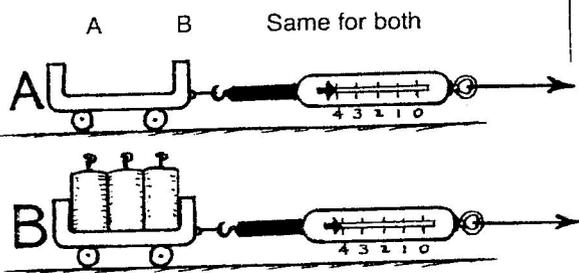
3. Cart A is pulled with a force of **1 N**. Cart B has a mass of **2 kg** and is pulled with a force of **2 N**. Which undergoes the greater acceleration?



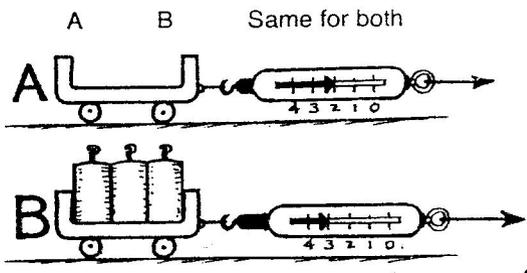
4. Cart A is pulled with a force of **1 N**. Cart B has a mass of **3 kg** and is pulled with a force of **3 N**. Which undergoes the greater acceleration?



5. This time Cart A is pulled with a force of **4 N**. Cart B has a mass of **4 kg** and is pulled with a force of **4 N**. Which undergoes the greater acceleration?



6. Cart A is pulled with a force of **2 N**. Cart B has a mass of **4 kg** and is pulled with a force of **3 N**. Which undergoes the greater acceleration?



thank to Dean Baird

with  
D.W.I!