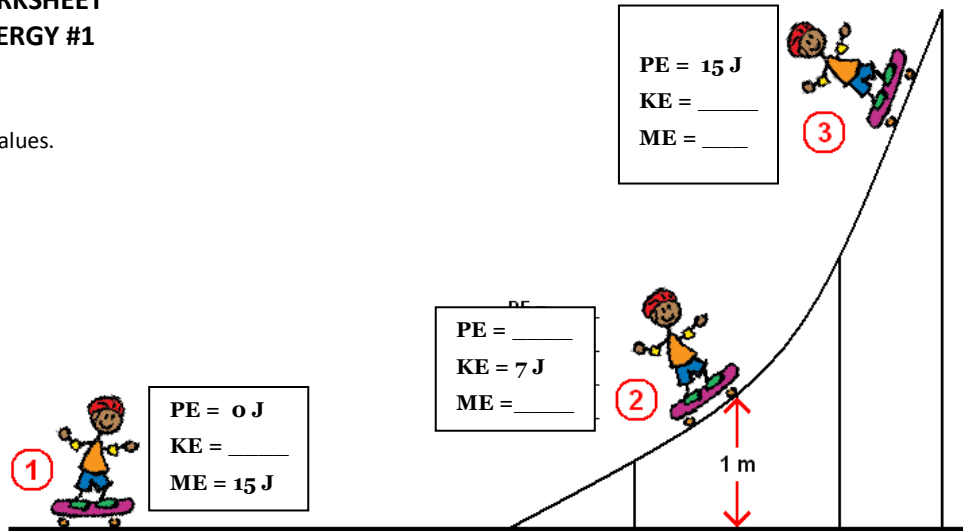
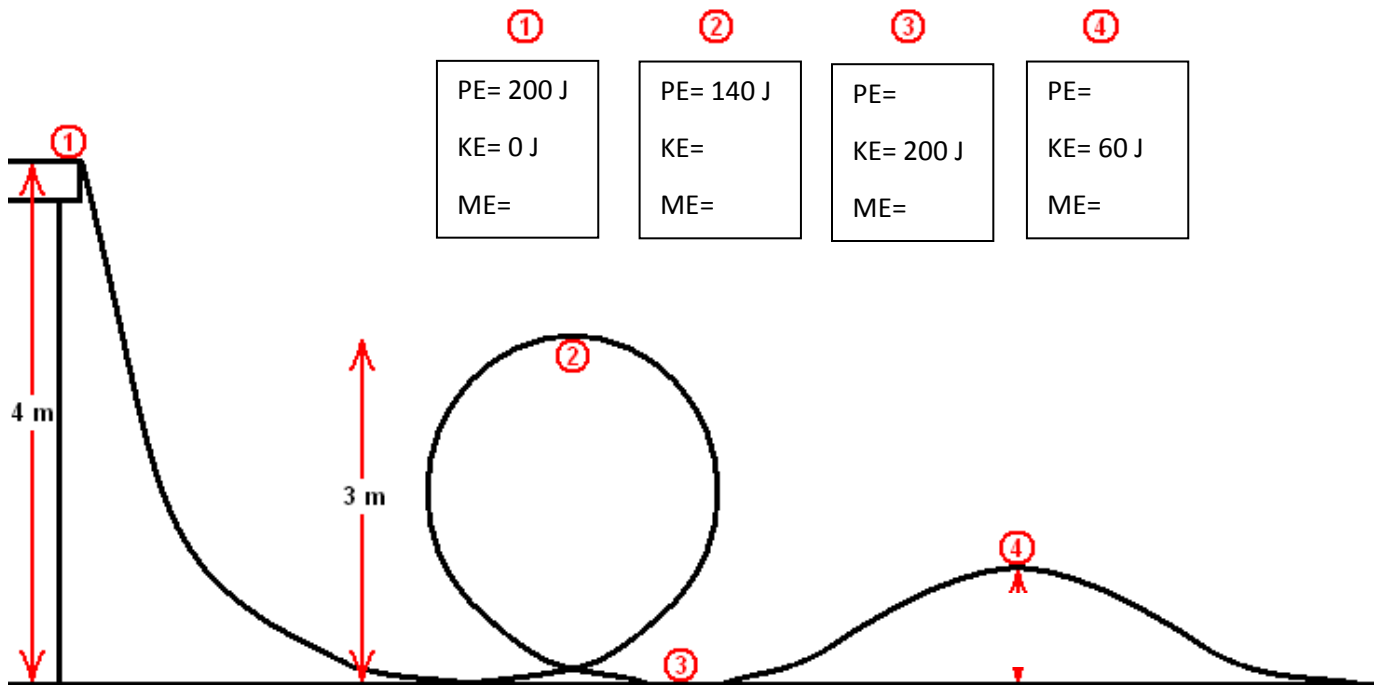


**PHYSICAL SCIENCE WORKSHEET
CONSERVATION OF ENERGY #1**

1. Fill in the missing values.



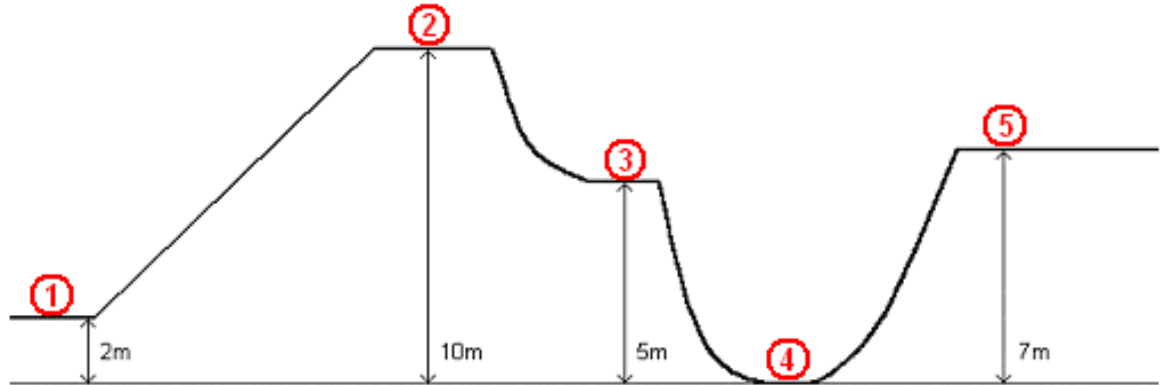
2. Fill in the missing values.



- A 1.8 kg book has been dropped from the top of the football stadium. Its speed is 4.8 m/s when it is 2.9 meters above the ground. What is its mechanical energy?
- A 28 kg child on a swing is traveling at 4.2 m/s. What is his potential energy if he has 315 J of mechanical energy?
- Identical twins Rick and Chris are painting a house. Rick is standing on the scaffolding 5 meters above the ground. Chris is standing on the scaffolding 5 meters above Pat. Who has more potential energy? Explain.

6. Fill in the missing values.

①	②	③	④	⑤
PE=	PE=	PE= 25 J	PE= 0 J	PE=
KE= 10 J	KE= 50 J	KE=	KE=	KE= 35 J
ME= 50 J	ME=	ME=	ME=	ME=



7. John has 200 Joules of potential energy when he is standing on a diving board.

- Find his mechanical energy.
- John jumps off of the diving board. What is his potential energy when he is halfway to the water?
- What is his mechanical energy when he lands in the water?

8. A ball has a 17 J of kinetic energy and its mechanical energy is 25 J.

- Find the potential energy of the ball.
- If the ball has a mass of 3.2 kg, what is its height above the ground?
- What is the speed of the ball?

9. What is the mass of a child that has a KE of 400 J who is riding her bike at 3.9 m/s?

10. Jared and Clay are climbing the stairs. Jared gets tired and stops halfway to the fourth floor. Clay makes it to the fourth floor without a problem. If Jared is twice as heavy as Clay, who has more potential energy? Explain.