

Work & Energy



Class Date Name The diagram below shows block A, The kinetic energy of a 980-kilogram race car traveling at 90 meters per second is having mass 2m and speed v, and block B having mass m and speed 2v. approximately ___ Compared to the kinetic energy of block Circle the answer letter. A, the kinetic energy of block B is _____. a. 4.4 x 10⁴ J a. the same b. 8.8 x 10⁴ J b. twice as great c. 4.0 x 10⁶ J Frictionless surface c. half as great A 5-newton force causes a spring to stretch How much work is done on a downhill 0.2 meter. What is the potential energy skier by an average braking force of stored in the stretched spring? 9.8×10^2 newtons to stop her in a Circle the answer. distance of 10 meters? 0.2 meter .0-kg ess s the **PREVIEW** Please Sign In or Sign Up to download the printable version of this worksheet wton lorce along the nancie of a wagon which makes a 25° angle with the horizontal. 40 J 150 J 20.0 N 2.00 kg How much work does the boy do in moving the wagon a horizontal 200 J 100 J distance of 4.0 meters? horizontal A 2000-watt motor working at full capacity can vertically lift a 400-newton weight at a **10** = How much work is done in moving 5.0 constant speed of coulombs of charge against a potential a. 2 x 10³ m/s difference of 12 volts? b. 5 m/s 12 J 30 J60 Jc. 50 m/s

Work & Energy - Answer Key



| Name | Class | Date _ | |
|---|-----------------------|---|---|
| The kinetic energy of a 980-kilo car traveling at 90 meters per sapproximately Circle the answer letter. a. 4.4 x 10 ⁴ J b. 8.8 x 10 ⁴ J c. 4.0 x 10 ⁶ J | | having mass 2m and speed block <i>B</i> having mass m and Compared to the kinetic er <i>A</i> , the kinetic energy of blo a. the same b. twice as great | d v, and d speed 2v. nergy of block |
| 2 A 5-newton force causes a spri 0.2 meter. What is the potential stored in the stretched spring? Circle the answer. | | How much work is done or skier by an average braking 9.8 × 10 ² newtons to stop hadistance of 10 meters? | g force of |
| 3 v e | PREVIEW | | .0-kg ess s the |
| Please <u>Sign In</u> or <u>Sign Up</u> to download the printable version of this worksheet | | | |
| the printable 40 J 150 J 20.0 N 100 J 200 J 5 A 2000-watt motor working at f can vertically lift a 400-newton constant speed of a. 2 x 10 ³ m/s b. 5 m/s c. 50 m/s | 2.00 kg ull capacity | | horizontal. boy do in intal 20.1 25° horizontal moving 5.0 st a potential |