## Physics Worksheet 7

(1) A car decelerates from $25.0 \mathrm{~m} / \mathrm{s}$ to $12.0 \mathrm{~m} / \mathrm{s}$ at $-3.92 \mathrm{~m} / \mathrm{s}^{2}$. How long does this take?
(2) A car travelling at $22.3 \mathrm{~m} / \mathrm{s}$ steps on the accelerator for 2.40 s . If the car travels 69.2 m in that time, what is the car's final speed?
(3) A particularly evil teacher sees a nuisance students walking below his 20.0 m high classroom window. He throws a water balloon down at the student that hits the student in the head 0.25 s later. If the student is 1.65 m tall, how fast did the teacher throw the balloon?
(4) A boy throws a rock upwards off a bridge at $20.0 \mathrm{~m} / \mathrm{s}$. If the rock hits the ground at $40.0 \mathrm{~m} / \mathrm{s}$, how high is the bridge?
(5) A witch is hovering 55.2 m off the ground on her broom when she drops a pumpkin towards some children. How long does it take the pumpkin to reach the ground?

