2.3 Quizlette – How Far **Name**________________________________

1. A car going 11.0 m/s accelerates at 0.890 m/s/s for 15.0 s. How far does it go in this time?

$X =$ $V_i =$ $V_f =$ $a =$ $t =$	Formula Show your steps

2. A runner accelerates from rest at 3.40 m/s/s to a final velocity of 9.40 m/s. What distance do they go?

$X =$ $V_i =$ $V_f =$ $a =$ $t =$	Formula Show your steps

3. A tennis ball cannon rolls to a stop covering a distance of 3.80 m in 7.20 s. What was its initial velocity?

$X =$ $V_i =$ $V_f =$ $a =$ $t =$	Formula Show your steps

4. What is the acceleration of a car that accelerates from 17.0 m/s to 11.0 m/s in 3.40 s?

$X =$ $V_i =$ $V_f =$ $a =$ $t =$	Formula Show your steps

1) 265 m, 2) 13.0 m, 3) 1.06 m/s, 4) -1.76 m/s/s

5. An accident scene investigator determines by measuring skid marks, that a car strikes a parked car at 8.20 m/s after having decelerated at -9.60 m/s/s for a distance of 17.0 m. What was the initial velocity of the car?

$X =$
$V_i =$
$V_f =$
$a =$
$t =$

Formula

Show your steps

6. A car covers 113 m accelerating at 0.640 m/s/s for 14.0 s. What was its initial velocity?

$X =$
$V_i =$
$V_f =$
$a =$
$t =$

Formula

Show your steps

7. A racecar is going 34.0 m/s after decelerating for 242 m for 4.50 s. What was its deceleration?

$X =$
$V_i =$
$V_f =$
$a =$
$t =$

Formulas - hint - find Vi first

Show your steps

8. A car going 20.0 m/s accelerates at 0.920 m/s/s. What time does it take to cover 123 m?

$X =$
$V_i =$
$V_f =$
$a =$
$t =$

Formulas - hint - find Vf first

Show your steps

5) 19.8 m/s, 6) 3.59 m/s, 7) -8.79 m/s/s, 8) 5.46 s