**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?

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| --- | --- | --- | --- |
| X =  Vi =  Vf =  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?

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| --- | --- | --- | --- |
| X =  Vi =  Vf =  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?

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| --- | --- | --- | --- |
| X =  Vi =  Vf =  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 =  Vi =  Vf =  a =  t = |  | Formula | 1) 265 m, 2) 13.0 m, 3) 1.06 m/s, 4) -1.76 m/s/s |
| Show your steps |

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?

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| --- | --- | --- | --- |
| X =  Vi =  Vf =  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?

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| --- | --- | --- | --- |
| X =  Vi =  Vf =  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 =  Vi =  Vf =  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?

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

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| --- | --- | --- | --- |
| X =  Vi =  Vf =  a =  t = |  | Formulas - hint - find Vf first |  |
| Show your steps |