



## Vehicle Dynamics – Theme 4: Stopping

## Worksheet 4b

### Quiz: How does a car stop?

#### 1. Which laws explain the movement of vehicles?

- a) Scientific laws
- b) Newton's laws
- c) Natural laws

#### 2. Which three forces act on moving objects on Earth?

- a) Gravity, friction and velocity
- b) Friction, air resistance and acceleration
- c) Gravity, friction and air resistance

#### 3. Which two forces are opposite forces to the moving force of a car?

- a) Friction and air resistance
- b) Friction and acceleration
- c) Gravity and friction

#### 4. What is the unit for measuring forces?

- a) Newtons
- b) Kilograms
- c) Kilometres

#### 5. Which of the statements below is true?

- a) The smaller the mass the smaller the acceleration
- b) The bigger the mass the greater the acceleration
- c) The smaller the mass the greater the acceleration

#### 6. Which is the third Newton's law?

- a) Action requires reaction
- b) Action equals reaction
- c) Reaction equals friction

#### 7. When do cars dig themselves into the ground?

- a) When the ground is soft
- b) When the ground is hard
- c) When the ground is uneven

#### 8. In which direction does gravity push a car?

- a) Upwards
- b) Downwards
- c) Forward

#### 9. Which force keeps a car on the ground?

- a) Air thrust
- b) Gravity
- c) Road thrust

#### 10. When is the movement force equal to the friction force?

- a) When the car moves at a steady velocity
- b) When the car accelerates
- c) When the car is slowing down