

13.6 Physics of driving

1. (4P) You are approaching a sharp left-hand bend at high speed. Why is it necessary to reduce your speed before you have actually reached the bend? Because otherwise my vehicle

- a) Could begin to skid
- b) Could slide off to the right along the bend
- c) ~~Could slide off to the left along the bend~~

2. (4P) You are driving at high speed into a bend. What could happen if you had to brake suddenly? My vehicle

- a) Could skid out of the road
- b) Could lose its grip on the road
- c) ~~Will constantly maintain its driving stability with the stability control~~

3. (3P) What increases the danger of “flying out” of a bend when driving at high speed?

- a) Braking
- b) Accelerating
- c) ~~Disengaging the clutch~~

4. (3P) You drive round a bend once at 30 km/h and again at 60 km/h. How does the centrifugal force change?
Centrifugal force at 60 km/h

- a) Is four times as high
- b) ~~Is twice as high~~
- c) ~~Is the same~~

5. (3P) What increases the effect of centrifugal force on the vehicle when driving round bends?

- a) Higher speed
- b) Smaller radius of a bend
- c) ~~Higher tyre pressure~~

6. (3P) What does a front-wheel drive car tend to do if you accelerate too much on a bend?

- a) The front end tends to turn out to the side
- b) ~~The rear end tends to turn out to the side~~
- c) ~~The vehicle tends to oversteer~~

7. (3P) What does a rear-wheel drive car tend to do if you accelerate too much on a bend?

- a) The rear end tends to turn out to the side
- b) ~~The front end tends to turn out to the side~~
- c) ~~The vehicle tends to understeer~~

8. (4P) You suddenly have to brake when cornering on a wet carriageway. What special aspects exist with a vehicle equipped with an anti-lock braking system (ABS)?

- a) The steering capability is retained for longer
 - b) ~~The vehicle will always remain stable~~
 - c) ~~It is not possible for the vehicle to skid out of the bend~~
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