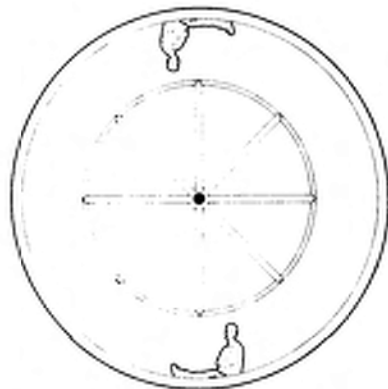


- 14 On a fairground ride, passengers are rotated in a vertical circle of radius 4.00 m. Passengers complete one revolution in 3.70 s.

A passenger of mass 77.0 kg is shown in the diagram when at the top of the circle and when at the bottom of the circle.



Which force does the ride exert on the passenger in each position?

| | force at top | force at bottom |
|---|--------------|-----------------|
| A | 1640 N down | 133 N up |
| B | 1640 N up | 133 N down |
| C | 133 N down | 1640 N up |
| D | 133 N up | 1640 N down |