1 12 000 vehicles drive through a road toll on one day.
The ratio cars : trucks : motorcycles = 13 : 8 : 3.

(a) (i) Show that 6500 cars drive through the road toll on that day.

Answer(a)(i)

$$\text{Car} = \frac{13}{13+8+3} \times 12000$$
$$= \frac{13}{24} \times 12000$$
$$= 6500$$

[1]

(ii) Calculate the number of trucks that drive through the road toll on that day.

$$\text{Truck} = \frac{8}{13+8+3} \times 12000$$
$$= 4000$$

Answer(a)(ii) 4000 [1]

(b) The toll charges in 2014 are shown in the table.

Vehicle	Charge
Cars	\$2
Trucks	\$5
Motorcycles	\$1

$$\text{Motorcycle} = \frac{3}{13+8+3} \times 12000$$
$$= 1500$$

Show that the total amount paid in tolls on that day is \$34 500.

Answer(b)

Car : 6500 × \$2 = \$ 13000
Truck : 4000 × \$5 = \$ 20000
Motorcycle : 1500 × \$1 = \$ 1500
\$ 34500

[2]