

- 8 In order to pull a protruding tooth back into line, a metal band is attached to the tooth, as shown in diagram 1.

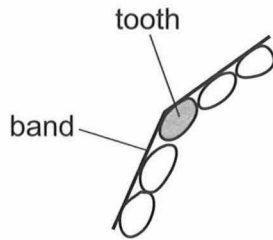


diagram 1

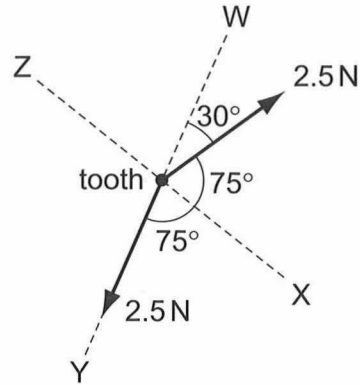


diagram 2

Diagram 2 shows the two forces of 2.5 N which the band exerts on the tooth. The angle between the two parts of the band is  $150^\circ$ .

This treatment makes the tooth move so slowly in the gum that it is effectively in equilibrium. For equilibrium to exist, another force must act.

What is the magnitude and direction of this force?

	magnitude	direction
<b>A</b>	0.33 N	W
<b>B</b>	0.33 N	Y
<b>C</b>	1.3 N	X
<b>D</b>	1.3 N	Z