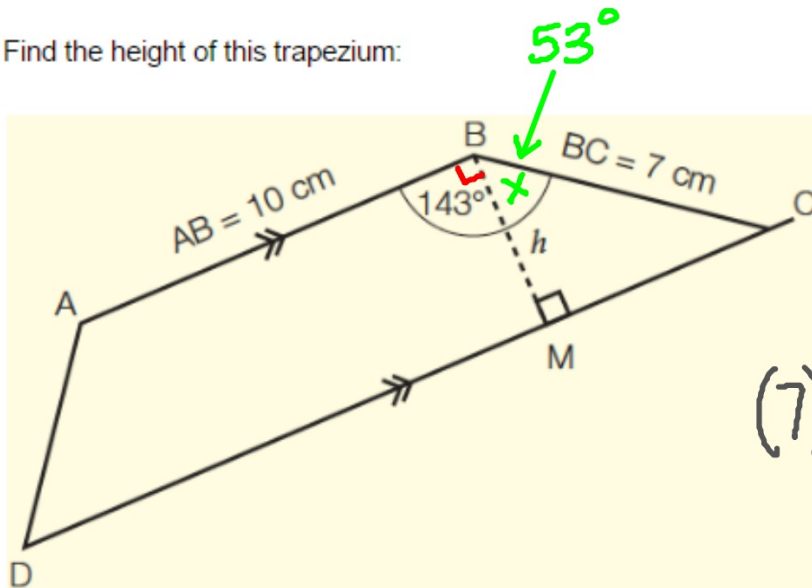


Name: \_\_\_\_\_ Block: \_\_\_\_\_ Date: \_\_\_\_\_

## Lesson 15.3 - Harder Trigonometry Problems

1. Find the height of this trapezium:

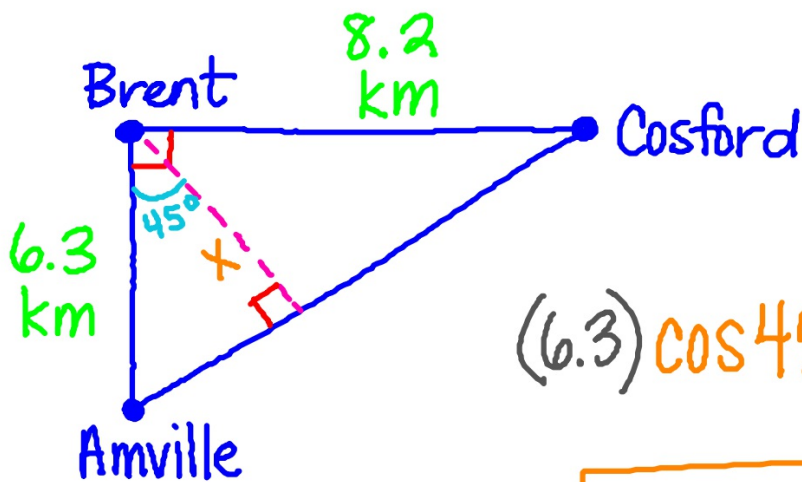


$$x = 143 - 90$$
$$x = 53^\circ$$

$$(7) \cos 53 = \frac{h}{7} \quad (7)$$

$$4.21 \text{ cm} = h$$

2. Three friends are hiking. They start at Amville and walk 6.3 km due north to Brent. They plan to turn east and walk another 8.2 km to Cosford. At Brent, one of the friends twists his ankle so the group decides to take the shortest route to the road that runs directly from Amville to Cosford. How far will they have to walk to reach the road?



$$(6.3) \cos 45 = \frac{X}{6.3} (6.3)$$

$$4.45 \text{ km} = X$$