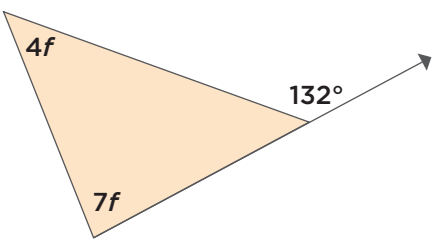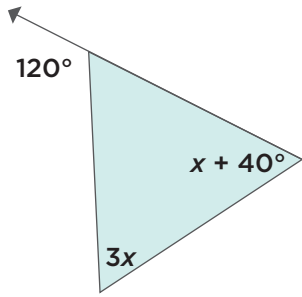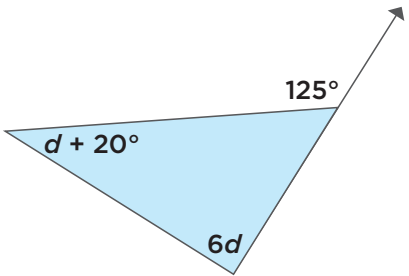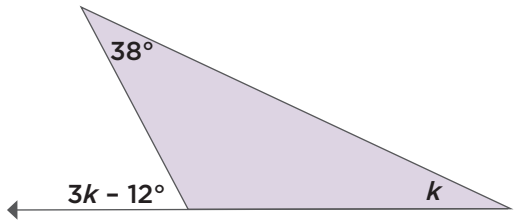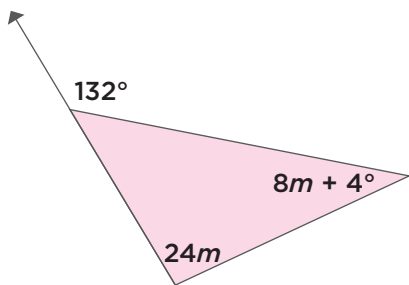# EXTERIOR ANGLES OF TRIANGLES: SOLVE FOR THE VARIABLE

The **Exterior Angle Theorem** states that the measure of an exterior angle of a triangle is equal to the sum of the two opposite interior angles. Use this theorem to solve for the variables below.
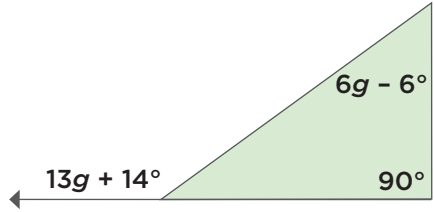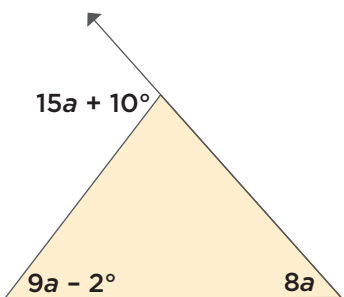
1.

$4f$

$132°$

$7f$

$f =$ _____

2.

$120°$

$x + 40°$

$3x$

$x =$ _____

3.

$125°$

$d + 20°$

$6d$

$d =$ _____

4.

$38°$

$3k - 12°$

k

$k =$ _____

5.

$132°$

$8m + 4°$

$24m$

$m =$ _____

6.

$6g - 6°$

$13g + 14°$

$90°$

$g =$ _____

7.

$15a + 10°$

$9a - 2°$

$8a$

$a =$ _____

8.

$35t - 3°$

$50t + 62°$

$45t + 5°$

$t =$ _____