



Factorise fully

$$75 - 48x^2$$

At a summer camp, children pick a morning, an afternoon and an evening activity.
There are 4 morning and 7 evening activities to pick from.
Altogether there are 224 different ways to choose their activities.

How many afternoon activities are there?

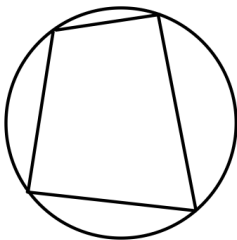
Given $f(x) = x^2 + 2$ and
 $g(x) = x + 14$

Find the values of a such that
 $f(a) = g(a)$

Work out

$$\frac{9}{4x^3} + \frac{5}{3x} - \frac{1}{2x}$$

Give your answer as a single fraction in its simplest form



Prove the opposite angles in a cyclic quadrilateral add to 180°