Pythagoras' Theorem

1. Calculate the unknown length in each of the following right-angle triangles.

(i)

3

w

4

(ii)

x

6

8

(iii)

y

5

13

(iv)

11

5

z

(v)

g

3

10

(vi)

h

21

29

(vii)

$\sqrt{2}$ i

i

(viii)

j

4    $\sqrt{17}$

(ix)

k $\sqrt{18}$

k

(x)

6

5x $\sqrt{11}$
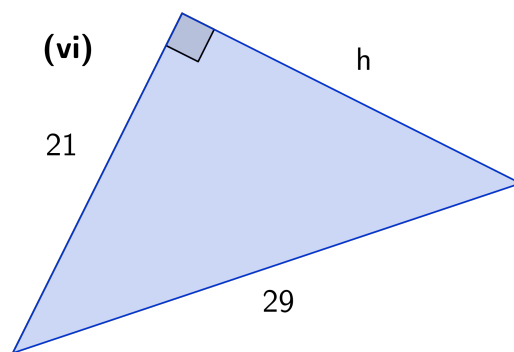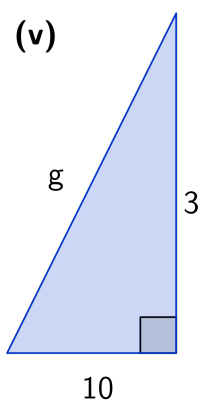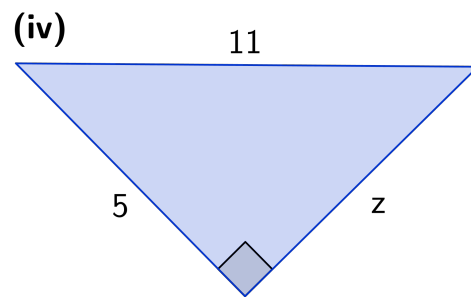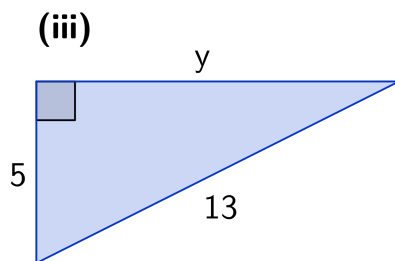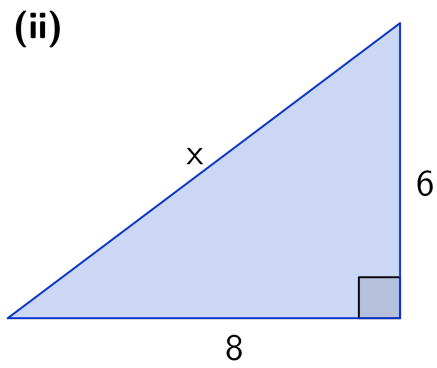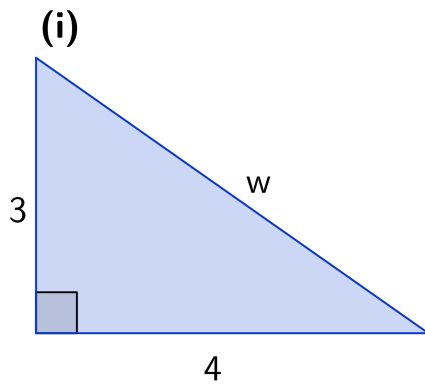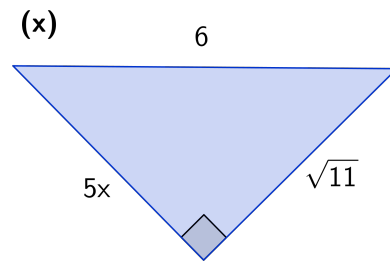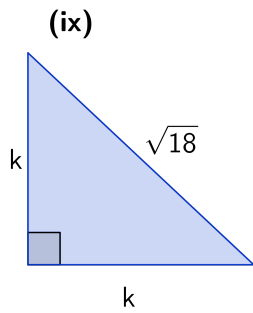
2. Are the following triangles right-angle triangles?

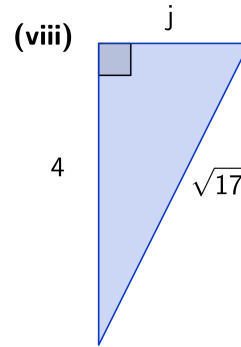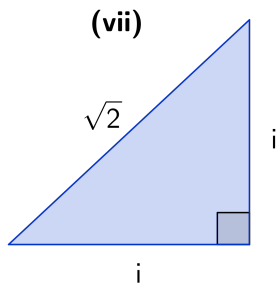**(i)**

10

4

α

8

(ii)

2

1

β

$\sqrt{3}$
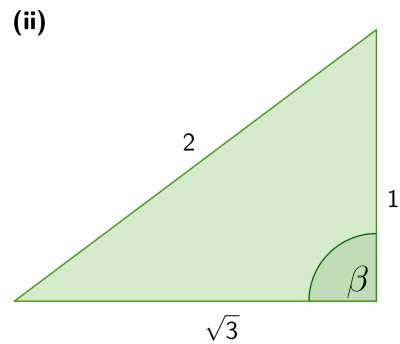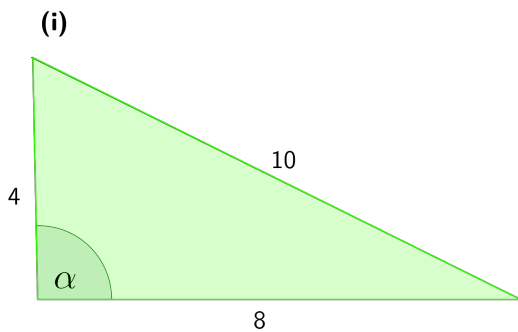
3. A television's size is measured along the diagonal, in this case the television is advertised as being 130cm. If the height is given as 50cm, what is the width?

50cm

4. The following square has sides of lengths 1m, can you calculate the length of the diagonal dashed line.
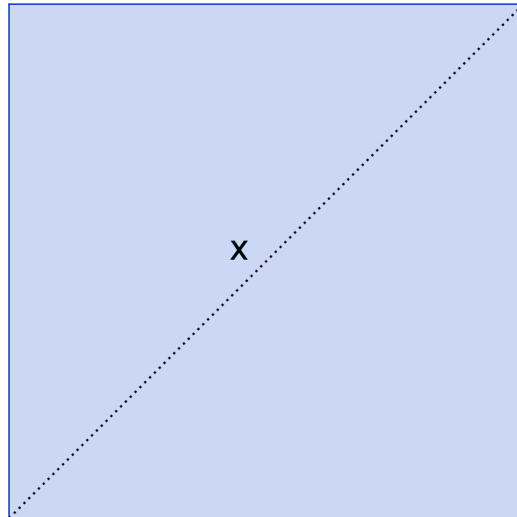
5. In the following diagram, what is the value of x. Does this solution help you determine the value of the angle θ?
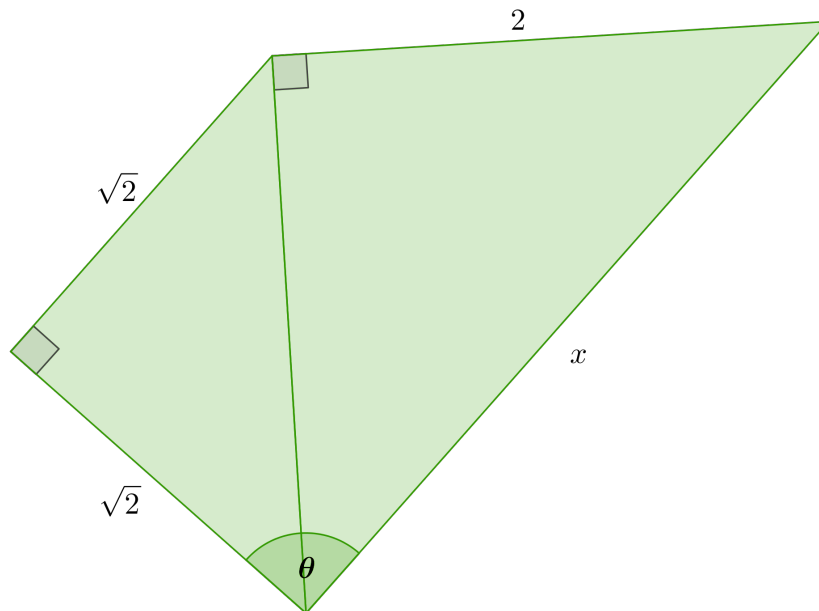
6. Munster's out-half has a kick straight in front of the posts from the 22m line. What is the minimum distance the ball has to travel to get over the 3m cross-bar.

3m

22m