GEOMETRY TEST - 3° ESO

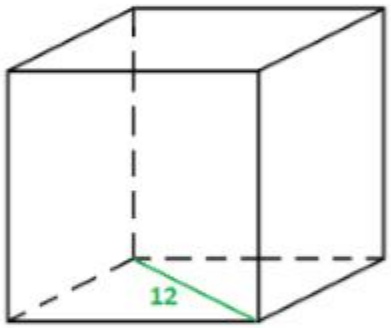
Exercise 1: (1.5 ptos) Find the sides of a right-angled triangle if they are given by $x-2$, $x+5$ and $x+6$

The sides measure 5, 12 and 13 whatever units I'm using

Exercise 2: (0.75 ptos) Enunciate Pythagoras' theorem

In any right-angled triangle the square of the hypotenuse equals the sum of the squares of the other two sides

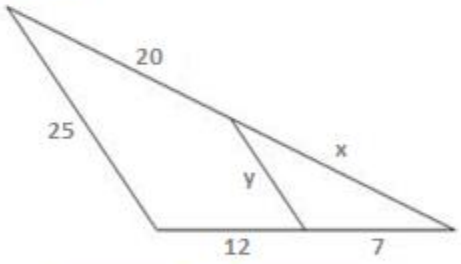
Exercise 3: (1.25 ptos) Find the axial diagonal of a cube if the diagonal of one of its faces measures 12 cm



$\boxed{D = 14.7 \text{ cm}}$

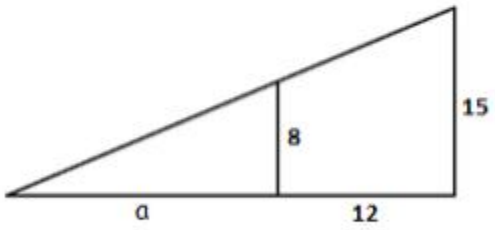
Exercise 4: (2 ptos) Work out the values of the indeterminates in the following figures:

a)



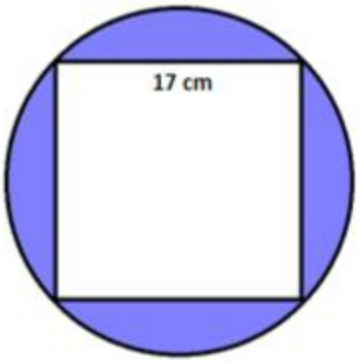
$\boxed{x = 11.67}$ $\boxed{y = 9.21}$

b)



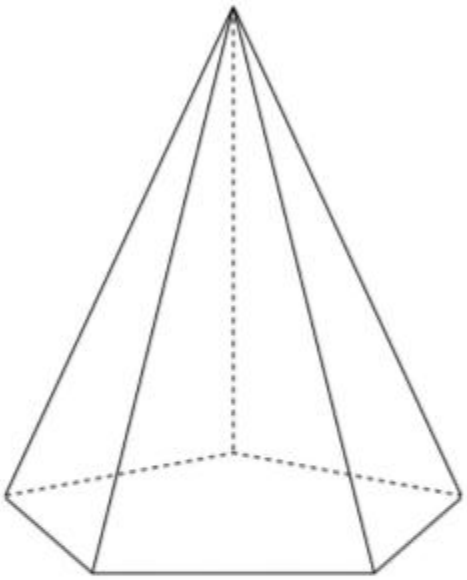
$\boxed{a = 13.71}$

Exercise 5: (1.25 ptos) Work out the value of the shadowed area if the side of the square measures 17 cm



$A = 164.96 \text{ cm}^2$

Exercise 6: (2 ptos) Work out the value of the area of a regular pentagonal pyramid with altitude 12 cm if the length of the side of the base is 10 cm and its edge measures 15 cm



$A_{LAT} = 353.55 \text{ cm}^2$

$A_{BAS} = 187.08 \text{ cm}^2$

$A_{PYR} = 540.63 \text{ cm}^2$

Exercise 7: (1.25 ptos) Find the height of the Empire State Building: $h = 380.56 \text{ m}$