# Thursday (answers) – LO: to calculate the area of any triangle.

## Varied fluency

### Developing

1a. $10cm^2$
2a. False, the area is $20cm^2$
3a. $12cm^2$
4a. A has the largest area.
A = $15cm^2$ B=$14cm^2$

### Expected

5a. $14cm^2$
6a. True
7a. $18cm^2$
8a. A has the largest area.
A = $9cm^2$ B = $20mm^2$

### Greater Depth

9a. $18cm^2$
10a. False, the area is $33cm^2$
11a. $22.5cm^2$
12a. A has the largest area.
A = $26cm^2$ B = $21cm^2$

## Reasoning and problem solving

### Developing

1b. Various possible answers. Accept any triangle where the height = 6cm and the base = 9cm. Area = $27cm^2$.
2b. Matt is correct because A = $99cm^2$ and B = $72cm^2$. $99cm^2$ is greater than $72cm^2$.
3b. A = 12cm x 5cm = $60cm^2 \div 2 = 30cm^2$.
B = 12cm x 6cm = $72cm^2 \div 2 = 36cm^2$.
$36cm^2 - 30cm^2 = 6cm^2$.

### Expected

4b. Various possible answers. Accept any triangle where the base and height each = 12cm. Area = $72cm^2$.
5b. Mustafa is correct because A = $36cm^2$ and B = $12cm^2$. $12cm^2 \times 3 = 36cm^2$.
6b. A = 7cm x 12cm = $84cm^2 \div 2 = 42cm^2$.
B = 11cm x 4cm = $44cm^2 \div 2 = 22cm^2$.
$42cm^2 - 22^2cm = 20cm^2$.

### Greater Depth

7b. Various possible answers. Accept any triangle where the base = $90mm^2$ and the height = $30mm^2$. Area = $1{,}350mm^2$.
8b. Penny is correct because A = $17.5m^2$ and B = $35m^2$. $17.5m^2$ is half of $35m^2$.
9b. A = 9cm x 4.5cm = $40.5cm^2 \div 2 = 20.25cm^2$.
B = 9.5cm x 6cm = $57cm^2 \div 2 = 28.5cm^2$.
$28.5cm^2 - 20.25cm^2 = 8.25cm^2$.