Fast 5

10% of 4582

3698 ÷ 1000

45 x 32

85689 + 45872

99686 - 45875

Fast 5

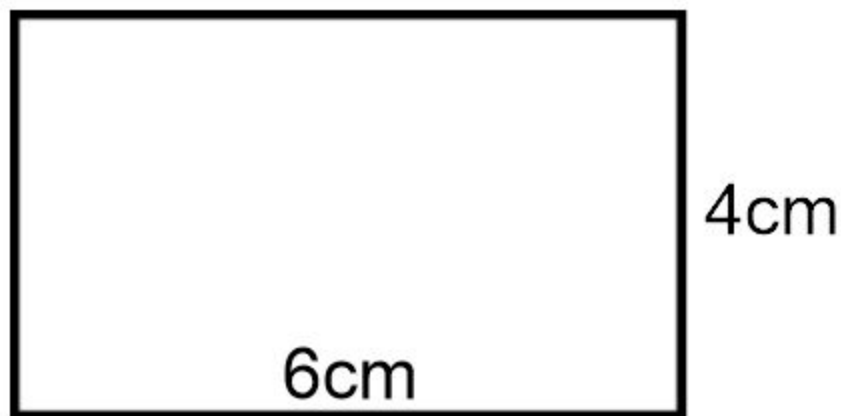10% of 4582 = 458.2   3698 ÷ 1000 = 3.698

45 x 32 = 1440

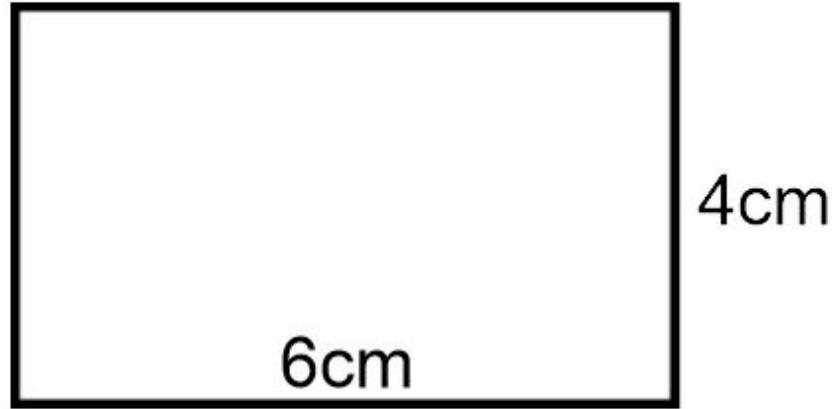85689 + 45872 = 131561   99686 - 45875 = 53811

Can I find the areas of triangles and parallelograms?
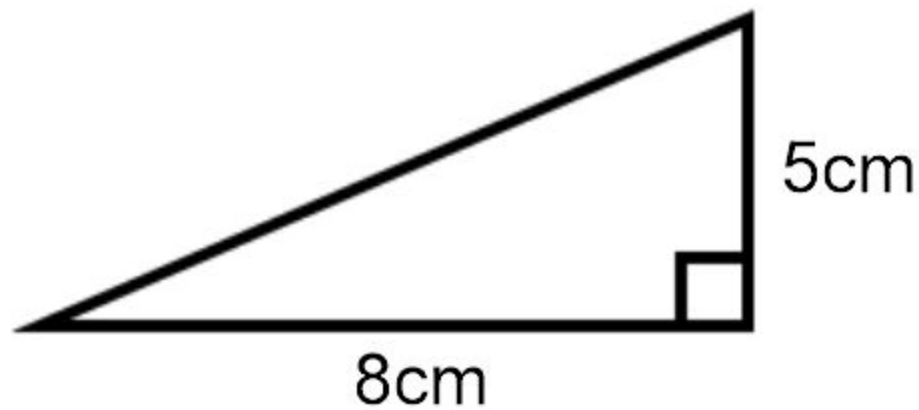
What is the AREA of a shape?
How do we find it?

4cm

6cm

What is the area of this shape and how
do we record it?

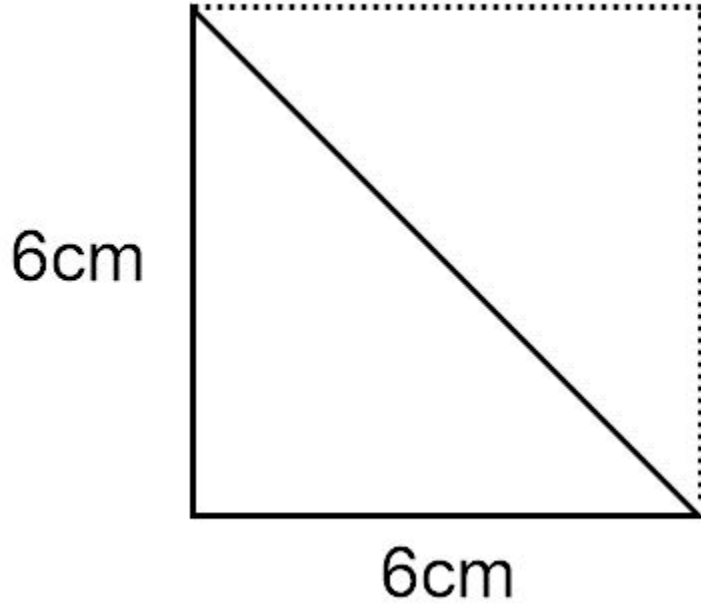We multiply the base by the height and because the area is the space INSIDE the 2D shape, we record it in cm²

4cm x 6cm = 24cm²

5cm

8cm

How do you think we find the area of a triangle? What shapes can we make from them?

The simplest method to finding the area of a triangle is to make it into a rectangle or square and HALVE the area of that shape.
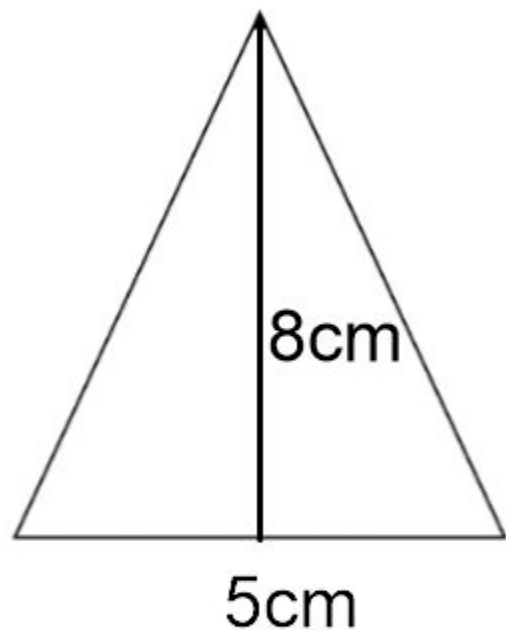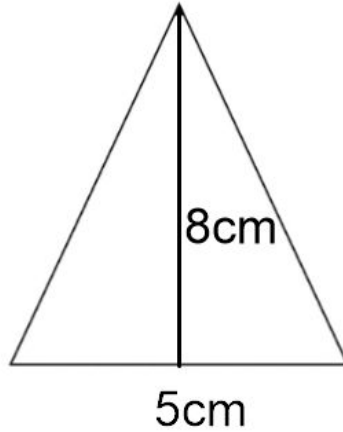
6cm

6cm
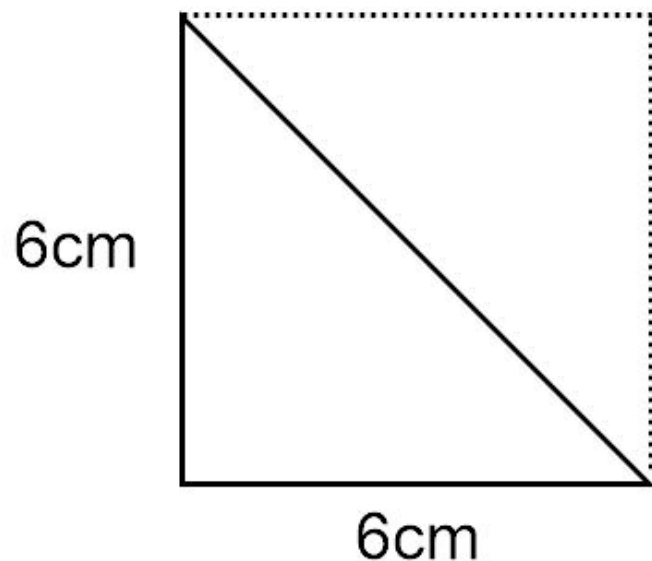
Here, we would calculate 6cm x 6cm = 36cm² for the area of the SQUARE. Then, we would halve that answer to find our answer for the area of the triangle, 18cm²

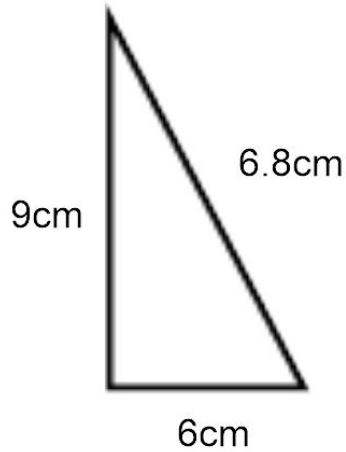The other way to calculate the area is simply finding half of the base of the triangle multiplied by the height.

8cm

5cm

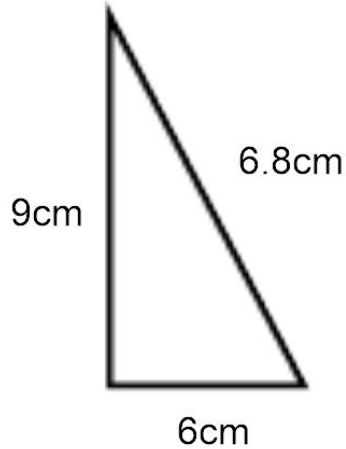What is the area of this triangle? How would you work it out?

5cm x 8cm = 40cm²

40cm² ÷ 2 = 20cm²

What is the area of this triangle? Is all of the given information useful?

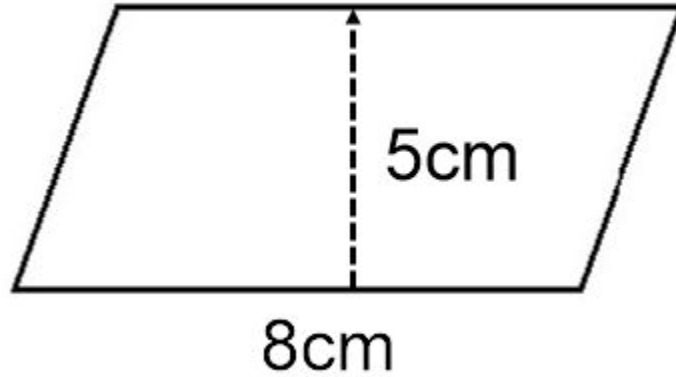We only need the base and the height to find the area, so let's use those.
9cm x 6cm = 54cm²
54cm² ÷ 2 = 27cm²

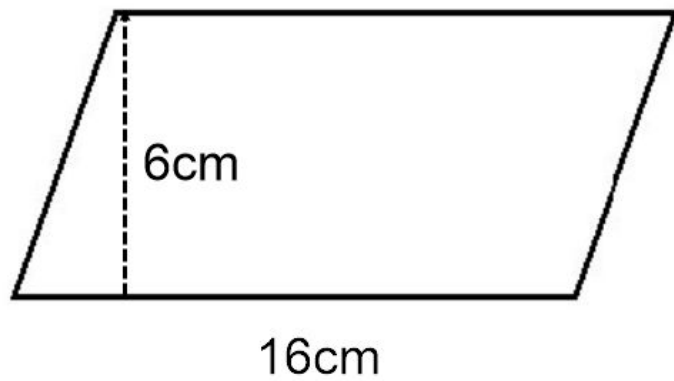To find the area of a parallelogram, we just have to multiply the length of the base by the height.

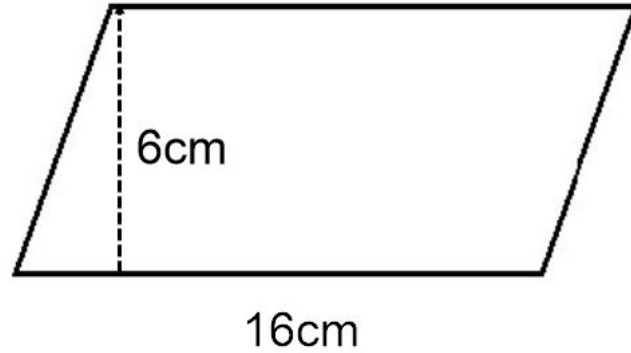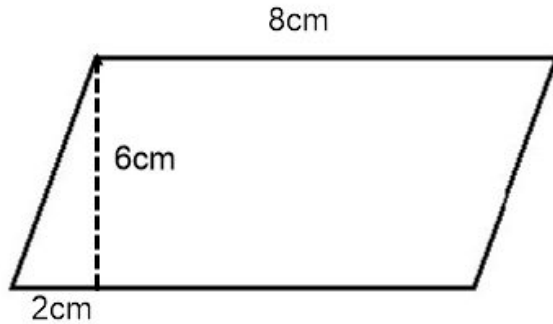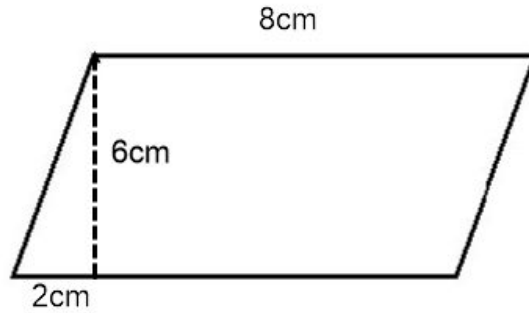Let's try to find the areas of some parallelograms.

5cm

8cm

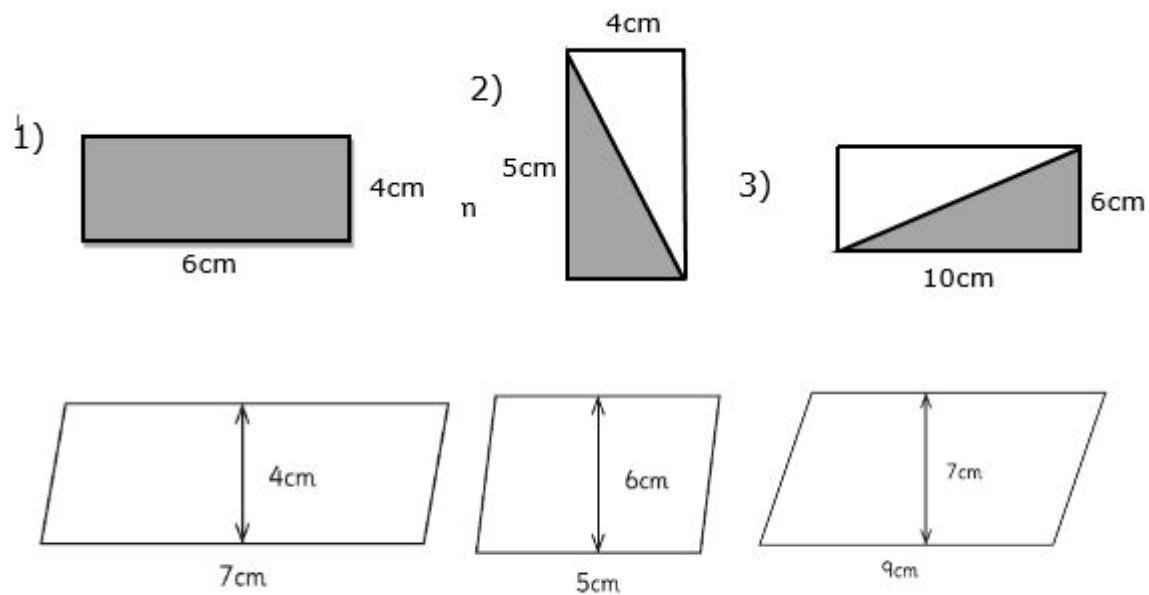5cm x 8cm = 40cm²

6cm

16cm

6cm
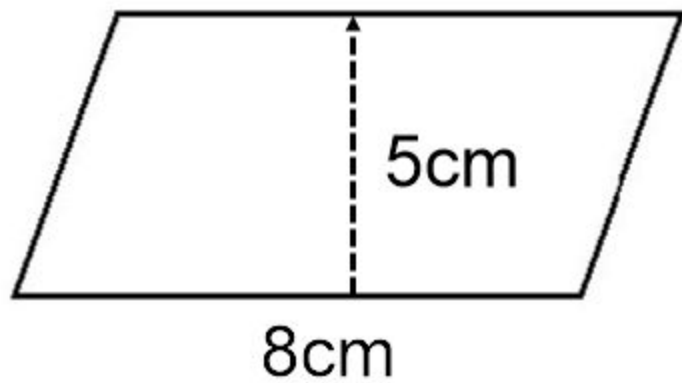
16cm

16cm x 6cm = 96cm²

Find the relevant information here and then calculate the area of this parallelogram.

8cm x 6cm = 48cm²

Red

1)

4cm

6cm

2)

4cm

5cm

n

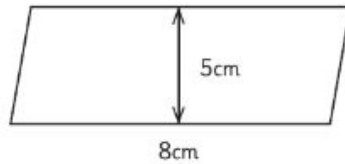3)

6cm

10cm

4cm

7cm

6cm

5cm

7cm

9cm

Which parallelogram has the largest area? What is the difference between the largest and smallest area?

Yellow
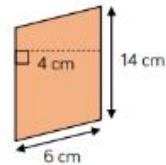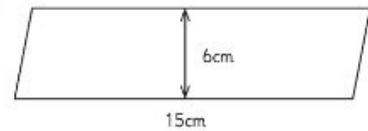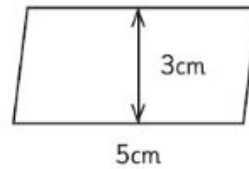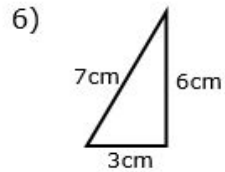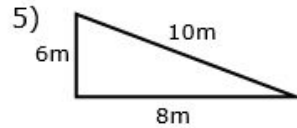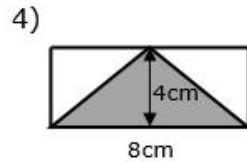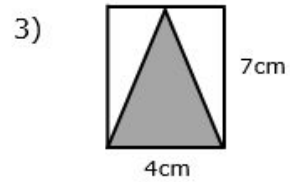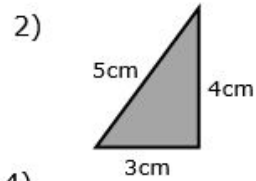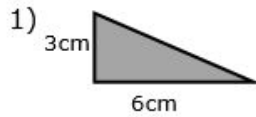
1)

3cm 6cm

2)

5cm 4cm 3cm

3)

7cm 4cm

4)

4cm 8cm

5)

6m 10m 8m

6)

7cm 6cm 3cm

5cm 8cm

3cm 5cm

6cm 15cm

4 cm 14 cm 6 cm
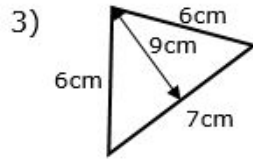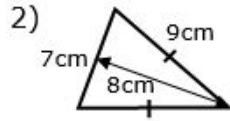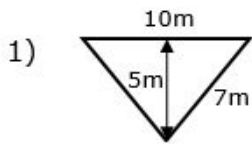
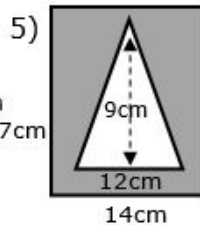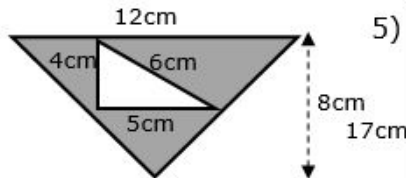Dexter thinks the area of the parallelogram is 84 cm².

What mistake has Dexter made?

What is the correct area?

Green

1)
10m, 5m, 7m

2)
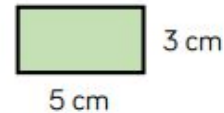9cm, 7cm, 8cm

3)
6cm, 9cm, 6cm, 7cm

4) Work out the shaded area:
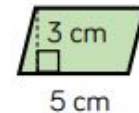12cm, 4cm, 6cm, 5cm, 8cm, 17cm

5)
9cm, 12cm, 14cm

Dora and Eva are creating a mosaic.
They are filling a sheet of paper this size.
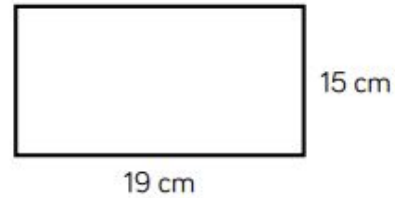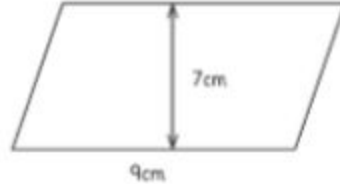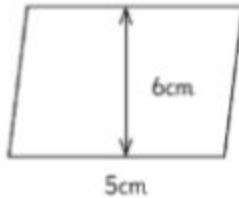
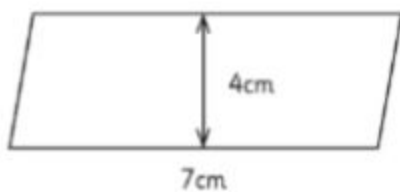15 cm

19 cm

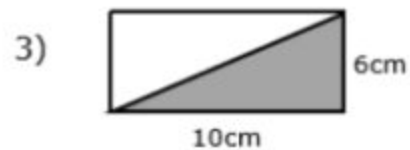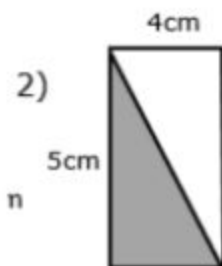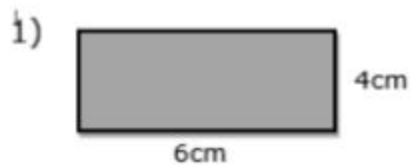Dora is using tiles that are rectangular.

3 cm

5 cm

Eva's tiles are parallelograms.

3 cm

5 cm

Dora thinks that she will use fewer tiles than Eva to fill the page because her tiles are bigger.

Do you agree? Explain your answer.

Red

1)

4cm

6cm

2)

4cm

5cm

n

3)

6cm

10cm

4cm

7cm

6cm

5cm

7cm

9cm

Which parallelogram has the largest area? What is the difference between the largest and smallest area?
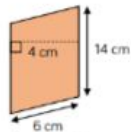
1. 24cm^2

2. 10cm^2

3. 30cm^2

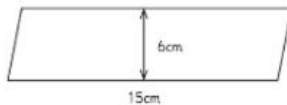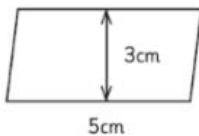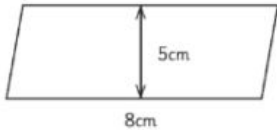4. 28cm^2, 30cm^2, 63cm^2 = Third has the largest area. Difference is 35cm^2

Yellow
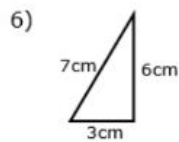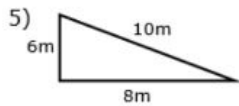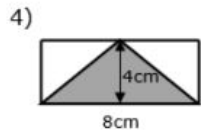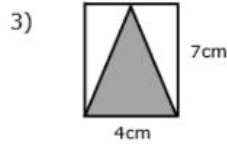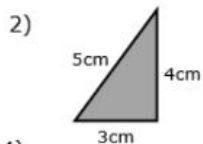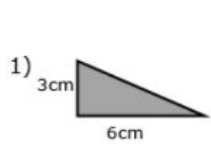
1) 3cm, 6cm

2) 5cm, 4cm, 3cm

3) 7cm, 4cm

4) 4cm, 8cm

5) 10m, 6m, 8m

6) 7cm, 6cm, 3cm

5cm, 8cm

3cm, 5cm

6cm, 15cm

4 cm, 14 cm, 6 cm

Dexter thinks the area of the parallelogram is 84 cm².

What mistake has Dexter made?

What is the correct area?

1. 9cm²

2. 6cm²

3. 14cm²

4. 16cm²

5. 24cm²

6. 9cm²

7. 40cm²

8. 15cm²

9. 90cm²

10. He's multiplied 14 by 6 instead of by 4. Correct area is 56cm²

Green

15 cm

19 cm

1) 10m 5m 7m

2) 7cm 9cm 8cm

3) 6cm 9cm 6cm 7cm

Dora is using tiles that are rectangular.

3 cm

5 cm

4) Work out the shaded area:

12cm
4cm 6cm
5cm

5) 8cm 17cm 9cm 12cm 14cm

Eva's tiles are parallelograms.

3 cm

5 cm

Dora thinks that she will use fewer tiles than Eva to fill the page because her tiles are bigger.

Do you agree? Explain your answer.

1. 25m²

2. 28cm²

3. 31.5cm²

4. 86cm²

5. 184cm²

6. Dora is wrong, both tiles have the same area, so they will need the same number of tiles. The area is 285cm² and you would need 19 tiles to complete the pattern.