



GRADE 6 · GEOMETRY · PRACTICE

AREA BY COMPOSING & DECOMPOSING

Today's goal: I can find area of triangles by composing into rectangles or decomposing into triangles and other shapes and use to solve mathematical problems, find area of triangles by composing into rectangles or decomposing into triangles and other shapes and use to solve real-world problems, find area of quadrilaterals by composing into rectangles or decomposing into triangles and other shapes and use to solve mathematical problems, find area of quadrilaterals by composing into rectangles or decomposing into triangles and other shapes and use to solve real-world problems, find area of polygons by composing into rectangles or decomposing into triangles and other shapes and use to solve mathematical problems and find area of polygons by composing into rectangles or decomposing into triangles and other shapes and use to solve real-world problems.



Pick your peppers!

Everyone does Mild & Medium. Then climb as high as you can.

**Mild**

Tan the Turtle

**Medium**

Digit the Fox

**Spicy**

Blaze the Dragon

**Extra Spicy**

Pi the Owl

WATCH MR DJ SOLVE

Find the area of a rectangle 9 by 5.

1 $9 \times 5 = 45.$

Answer: **45 sq units**



REMEMBER Triangle: $(b \times h) \div 2$. Rectangle and parallelogram: $b \times h$. Trapezoid: average the parallel sides, then $\times$ height. For an odd shape, either **decompose** it into simple pieces and add, or **compose** a big rectangle and subtract the missing part.

**MILD****Tan the Turtle:** Slow and steady. Warm up!

- 1 Find the area of a triangle with base 10 and height 6.

Answer

- 2 Find the area of a triangle with base 7 and height 4.

Answer

**OOPS ALERT**

Careful on #1! The slip Mr DJ sees most: Answered 60 — forgot to halve.

**MEDIUM**

Digit the Fox: Stretch your brain.

- 3** Find the area of a parallelogram with base 15 and height 8.

Answer

- 4** Find the area of a trapezoid with parallel sides 5 and 9 and height 6.

Answer

- 5** Find the area of a triangle with base 9 and height 12.

Answer

**SPICY**

Blaze the Dragon: Bring the heat!

- 6** An L-shaped garden is a 12×9 rectangle with a 5×4 rectangle cut out. Find its area and say whether you added or subtracted.

Answer

- 7 A shape is a 6×4 rectangle with a triangle on top (base 6, height 3). Find the total area, showing each piece.

Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

- 8 A triangle has base 10, a perpendicular height of 4, and a slanted side of 5. Which measurement gives the area, and what is it? Explain.

Answer



How did this sheet feel?



Easy for me



Just right



Made me think

Stuck? Watch Mr DJ explain it

"Perimeter and Area of Rectangles Explained" on YouTube:
[youtube.com/@MathWithMrDJ](https://www.youtube.com/@MathWithMrDJ)

Brain break: daily puzzles

Three new math puzzles every day, free:
puzzles.mathwithmrdj.com