

Star Arrays — Extension Version

Fact strategies and factor puzzles



"Let's hunt for patterns in the stars," says Pip. "Use facts you know to crack the tricky ones."

1. Quick facts: $7 \times 8 =$ _____ $9 \times 9 =$ _____ $6 \times 8 =$ _____ $7 \times 9 =$ _____

2. Pip has 36 stars. Write **all** the different arrays she can make (rows $\times$ columns).

3. Use a fact you know to work out a harder one. Show how $4 \times 6 = 24$ helps you find 8×6 .

4. A number is a multiple of both 3 and 4, and is less than 30. Find all the numbers it could be.

5. Ollie says 24 is a "rectangle number" because you can arrange 24 stars in a full rectangle more than one way. How many ways? List them.
