

EXPLORATION

4F

Estimating Square Roots

M8N1.c, M8N1.f,
M8N1.k

Knowing the square numbers can help you estimate square roots.

1. Complete the table of squares.

1^2	2^2	3^2	4^2	5^2	6^2	7^2	8^2	9^2	10^2
1									

11^2	12^2	13^2	14^2	15^2	16^2	17^2	18^2	19^2	20^2
121									

Use the table of squares above to help you estimate each square root to the nearest tenth. Use a calculator to check your estimates. Round to two decimal places.

	Square Root	Estimate	Calculator
2.	$\sqrt{10}$		
3.	$\sqrt{20}$		
4.	$\sqrt{200}$		
5.	$\sqrt{300}$		
6.	$\sqrt{57}$		
7.	$\sqrt{130}$		

Think and Discuss _____

8. **Discuss** your strategy for estimating square roots.