MATHEMATICS • YEAR 8

Calculating with Square Roots

Practise addition, subtraction, multiplication and division with square roots.

Name _____ **Date** _____

Work out each square root, then complete the calculation. Give exact answers and use the space to show any working.

01 Addition

Work out each sum

1. $\sqrt{25} + \sqrt{16} =$ _____
2. $\sqrt{36} + \sqrt{49} =$ _____
3. $8 + \sqrt{81} =$ _____
4. $\sqrt{121} + 3 =$ _____

02 Subtraction

Work out each difference

1. $\sqrt{64} - \sqrt{25} =$ _____
2. $\sqrt{100} - \sqrt{36} =$ _____
3. $\sqrt{144} - 7 =$ _____
4. $\sqrt{81} - \sqrt{16} =$ _____

03 Multiplication

Work out each product

1. $\sqrt{4} \times \sqrt{9} =$ _____
2. $3 \times \sqrt{16} =$ _____
3. $\sqrt{5} \times \sqrt{20} =$ _____
4. $\sqrt{7} \times \sqrt{7} =$ _____

04 Division

Work out each quotient

1. $\sqrt{64} \div \sqrt{4} =$ _____
2. $\sqrt{81} \div \sqrt{9} =$ _____
3. $\sqrt{100} \div \sqrt{25} =$ _____
4. $\sqrt{48} \div \sqrt{3} =$ _____

05 Mixed calculations

Remember the brackets

1. $(\sqrt{49} - \sqrt{25}) \times \sqrt{4} =$

Answer _____

2. $(\sqrt{64} \div \sqrt{16}) + \sqrt{9} =$

Answer _____

Square-root reminder $\sqrt{n}$ is the positive number which, when multiplied by itself, equals n.