

Maths Workout - Number

| Topic 23 - Indices 1 | | | | |
|---|---|--|--|---|
| Target 1 | Target 2 | Target 3 | Target 4 | Target 5 |
| <i>Express in index form (whole number indices); expand and evaluate whole number indices</i> | <i>Express in index form (negative indices); evaluate the reciprocal and other negative indices</i> | <i>Express in index form (fractional and negative indices); evaluate fractional and negative indices</i> | <i>Use the rules of indices to multiply, divide & simplify</i> | <i>Use the rules of indices to add, subtract & simplify</i> |
| 1. Write a sequence of multiplications in index form | 1. Evaluate the reciprocal of a whole number in fraction form with assistance | 1. Express a root in index form | 1. Multiply in index form; both positive indices; with assistance | 1. Simplify index form raised to an index; both positive indices; with assistance |
| 2. Expand index form and evaluate | 2. Evaluate negative indices in fraction form with assistance | 2. Express fractional index form as a root; with assistance | 2. Multiply in index form; 1 or 2 negative indices | 2. Simplify index form raised to an index; 1 or 2 negative indices |
| 3. Complete mixed calculations involving index form and square and cube roots | 3. Evaluate negative indices in fraction form | 3. Evaluate fractional index form, by expressing as a root, and evaluating; with assistance | 3. Complete missing elements in multiplications in index form | 3. Evaluate index form raised to an index; 1 or 2 negative indices |
| 4. Complete missing elements in mixed calculations involving index form and square and cube roots | 4. Express a unitary fraction in index form with assistance | 4. Evaluate negative fractional index form, by expressing as a root, and evaluating; with assistance | 4. Divide in index form; both positive indices; with assistance | 4. Simplify expressions in index form |
| 5. Speed response; identify a value in index form and its expanded value | 5. Express a unitary fraction in index form in 2 equivalent ways with assistance | 5. Express roots and reciprocals in positive index form | 5. Divide in index form; 1 or 2 negative indices | 5. Simplify and evaluate expressions in index form |
| 6. Speed response; identify a value in index form and its expanded value | 6. Speed response; identify a value in negative index form and its expanded value as a fraction | 6. Evaluate index form | 6. Complete missing elements in divisions in index form | |
| | 7. Speed response; identify a value in negative index form and its expanded value as a fraction | 7. Speed response; identify a value in fractional index form and its expanded value | | |
| | 8. Evaluate the reciprocal of a fraction | 8. Speed response; identify a value in negative fractional index form and its expanded value as a fraction | | |