**Investigating Multiplying Algebraic Powers**

**1.** Complete the table to simplify these algebraic expressions.

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| --- | --- | --- |
| Question | Working | Answer |
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**2.** Can you spot a rule which enables you to simplify the expressions without the need for working?

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**3.** Use your rule to simplify the following algebraic expressions.

(a) (b)

(c) (d)

(e) (f)

(g) (h)

(i) (j)

(k) (l)

**4.** Now simplify these harder algebraic expressions.

(a) (b)

(c) (d)

(e) (f)

(g) (h)

(i) (j)

**Investigating Dividing Algebraic Powers**

**1.** Complete the table to simplify these algebraic expressions.

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| Question | Working | Answer |
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**2.** Can you spot a rule which enables you to simplify the expressions without the need for working?

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**3.** Use your rule to simplify the following algebraic expressions.

(a) (b)

(c) (d)

(e) (f)

(g) (h)

(i) (j)

**4.** Now simplify these harder algebraic expressions.

(a) (b)

(c) (d)

(e) (f)

(g) (h)

**Investigating Algebraic Powers Raised to a Power**

**1.** Complete the table to simplify these algebraic expressions.

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| Question | Working | Answer |
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**2.** Can you spot a rule which enables you to simplify the expressions without the need for working?

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**3.** Use your rule to simplify the following algebraic expressions.

(a) (b)

(c) (d)

(e) (f)

(g) (h)

(i) (j)

**4.** Now complete the table to simplify these harder algebraic expressions.

|  |  |  |
| --- | --- | --- |
| Question | Working | Answer |
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