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| **Match-Up** | **Laws of Indices** |

Find the missing power $n$ in each of the statements.

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| **1** | $$5^{2}×5^{n}=5^{8}$$ |  | **7** | $$\frac{\left(7^{3}\right)^{n}}{7^{2}}=7^{10}$$ |  | **13** | $$(-2)^{1.5}=\frac{(-2)^{2}}{(-2)^{n}}$$ |
| **2** | $$8^{n}÷8^{3}=8^{4}$$ |  | **8** | $$\frac{5^{5}×5^{n}}{5^{12}}=5$$ |  | **14** | $$\left(7^{-2}\right)^{n}=7$$ |
| **3** | $$10^{n}×10=10^{3}$$ |  | **9** | $$6^{3}×\left(6^{2}\right)^{n}=6^{21}$$ |  | **15** | $$\frac{3^{n}×3}{3^{-3}}=3^{-5}$$ |
| **4** | $$\frac{9^{6}}{9^{n}}=9$$ |  | **10** | $$\frac{3^{8}}{3^{n}}=3^{10}$$ |  | **16** | $$\left(6^{^{1}/\_{2}}\right)^{n}=\frac{6}{6^{3}}$$ |
| **5** | $$\left(2^{6}\right)^{n}=2^{18}$$ |  | **11** | $$9^{1.5}×9^{n}=9^{4}$$ |  | **17** | $$\frac{4^{2n}}{4^{-3}}=4^{n}$$ |
| **6** | $$4^{2}×4^{n}×4^{3}=4^{15}$$ |  | **12** | $$2^{-4}=\left(2^{^{1}/\_{2}}\right)^{n}$$ |  | **18** | $$5^{n}×5^{n-1}=\left(5^{3}\right)^{n}$$ |

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| **A** | $$n=8$$ |  | **G** | $$n=9$$ |  | **M** | $$n=10$$ |
| **B** | $$n=2$$ |  | **H** | $$n=-4$$ |  | **N** | $$n=-2$$ |
| **C** | $$n=-0.5$$ |  | **I** | $$n=6$$ |  | **O** | $$n=0.5$$ |
| **D** | $$n=-3$$ |  | **J** | $$n=3$$ |  | **P** | $$n=-1$$ |
| **E** | $$n=5$$ |  | **K** | $$n=-8$$ |  | **Q** | $$n=7$$ |
| **F** | $$n=2.5$$ |  | **L** | $$n=-9$$ |  | **R** | $$n=4$$ |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |