

Outcome 1 - Evaluating Powers

Bronze examples

Examples... **To square a number means to multiply it by itself!**

$$1^2 = 1 \times 1 = 1 \quad (\text{NOT } 2!)$$

$$5^2 = 5 \times 5 = 25 \quad (\text{NOT } 10!)$$

$$11^2 = 11 \times 11 = 121 \quad (\text{NOT } 22!)$$

Silver examples

Examples... **To square a number means to multiply it by itself!**

$$50^2 = 50 \times 50 = 2500 \quad (\text{NOT } 100!)$$

$$90^2 = 90 \times 90 = 8100 \quad (\text{NOT } 180!)$$

$$400^2 = 400 \times 400 = 160\,000 \quad (\text{NOT } 800!)$$

Gold examples

Examples... **5³ means 5 multiplied by itself THREE times!**

$$5^3 = 5 \times 5 \times 5 = 125 \quad (\text{NOT } 15!)$$

$$3^4 = 3 \times 3 \times 3 \times 3 = 81 \quad (\text{NOT } 12!)$$

$$10^5 = 10 \times 10 \times 10 \times 10 \times 10 = 10\,000 \quad (\text{NOT } 50!)$$


Bronze Questions

Square the following numbers...



1

4^2

2

3^2

3

9^2

4

8^2

5

10^2

6

7^2

7

6^2

8

1^2

9

13^2

10

2^2

Silver Questions

Square the following numbers...



1

20^2

2

40^2

3

30^2

4

80^2

5

70^2

6

60^2

7

500^2

8

300^2

9

200^2

10

4000^2

Gold Questions

Evaluate the following powers...



1

5^1

2

1^2

3

4^3

4

7^4

5

8^5

6

3^6

7

6^7

8

9^8

9

2^9

10

4^{10}



Bronze Answers

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|----|-----|-----|----|
| 1. | 16 | 2. | 9 |
| 3. | 81 | 4. | 64 |
| 5. | 100 | 6. | 49 |
| 7. | 36 | 8. | 1 |
| 9. | 169 | 10. | 4 |

Silver Answers

- | | | | |
|----|---------|-----|------------|
| 1. | 400 | 2. | 1600 |
| 3. | 900 | 4. | 6400 |
| 5. | 4900 | 6. | 3600 |
| 7. | 250 000 | 8. | 90 000 |
| 9. | 40 000 | 10. | 16 000 000 |

Gold Answers

- | | | | |
|----|---------|-----|------------|
| 1. | 5 | 2. | 1 |
| 3. | 64 | 4. | 2401 |
| 5. | 32 768 | 6. | 729 |
| 7. | 279 936 | 8. | 43 046 721 |
| 9. | 512 | 10. | 1 048 576 |