

Name _____

Date _____



USING EXPONENTS SHEET 5:2

Work out these exponents.

1) $2^3 = \underline{\quad}$

2) $4^2 = \underline{\quad}$

3) $5^1 = \underline{\quad}$

4) $10^2 = \underline{\quad}$

5) $8^2 = \underline{\quad}$

6) $1^4 = \underline{\quad}$

7) $3^3 = \underline{\quad}$

8) $10^3 = \underline{\quad}$

9) $2^4 = \underline{\quad}$

10) $3^2 - 2^3 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

11) $5^2 + 3^2 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

12) $10^2 - 7^2 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

13) $3^3 + 6^2 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

14) $2^4 - 4^2 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

15) $9^2 - 8^2 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

Use a calculator to work these out.

16) $5^2 \times 3^3 = \underline{\quad} \times \underline{\quad} = \underline{\quad}$

17) $10^3 - 29^2 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

18) $5^3 - 3^4 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

19) $10^4 - 5^5 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

Work out the answers to the calculations below. Use a $>$, $<$ or $=$ sign to compare them - the first one has been done for you.

$5^2 - 3^2$

 $>$

$30 - 4^2$

$25 - 9 = 16$

$30 - 16 = 14$

$20 - 3^2$

$3^2 + 2^3$

$4^2 + 6^2$

$9^2 - 5^2$

$3^3 - 2^3$

$10^2 - 9^2$

$2^4 - 5^2 + 3$

$6^2 - 3^3 - 20$



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USING EXPONENTS SHEET 5:2 ANSWERS

1) $2^3 = 8$

2) $4^2 = 16$

3) $5^1 = 5$

4) $10^2 = 100$

5) $8^2 = 64$

6) $1^4 = 1$

7) $3^3 = 27$

8) $10^3 = 1000$

9) $2^4 = 16$

10) $3^2 - 2^3 = 9 - 8 = 1$

11) $5^2 + 3^2 = 25 + 9 = 34$

12) $10^2 - 7^2 = 100 - 49 = 51$

13) $3^3 + 6^2 = 27 + 36 = 63$

14) $2^4 - 4^2 = 16 - 16 = 0$

15) $9^2 - 8^2 = 81 - 64 = 17$

Use a calculator to work these out.

16) $5^2 \times 3^3 = 25 \times 27 = 675$

17) $10^3 - 29^2 = 1000 - 841 = 159$

18) $5^3 - 3^4 = 125 - 81 = 44$

19) $10^4 - 5^5 = 10000 - 3125 = 6875$

Work out the answers to the calculations below. Use a $>$, $<$ or $=$ sign to compare them - the first one has been done for you.

$20 - 3^2$

$20 - 9 = 11$

 $<$

$3^2 + 2^3$

$9 + 8 = 17$

$4^2 + 6^2$

$16 + 36 = 52$

 $<$

$9^2 - 5^2$

$81 - 25 = 56$

$3^3 - 2^3$

$27 - 8 = 19$

 $=$

$10^2 - 9^2$

$100 - 81 = 19$

$2^4 - 5^2 + 3$

$16 - 25 + 3 = -6$

 $>$

$6^2 - 3^3 - 20$

$36 - 27 - 20 = -11$

