

Name _____

Date _____



USING PARENTHESES & EXPONENTS SHEET 5:2

Remember to use PEMDAS - Parentheses first, then Exponents!

1) $2^2 \times (3^2 - 4) = \underline{\quad} \times \underline{\quad} = \underline{\quad}$

2) $10^2 - (4^2 + 24) = \underline{\quad} - \underline{\quad} = \underline{\quad}$

3) $(6^2 - 2^2) \times 2 = \underline{\quad} \times \underline{\quad} = \underline{\quad}$

4) $(2^3 + 5^2) \div 3 = \underline{\quad} \div \underline{\quad} = \underline{\quad}$

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

6) $(10 - 4)^2 = \underline{\quad}^2 = \underline{\quad}$

7) $(9 - 7)^3 + (2 + 4)^2 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

8) $(25 - 15)^2 - 7^2 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

9) $(24 \div 3)^2 - 3^3 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

10) $(11 - 3)^2 - 6^2 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

11) $(2.5 + 3.5)^2 - 5^2 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

12) $50 - (4.2 + 2.8)^2 = \underline{\quad} - \underline{\quad} = \underline{\quad}$

13) $10^2 - (2^3 \times 7) = \underline{\quad} - \underline{\quad} = \underline{\quad}$

14) $2 \times (3^2 - 2^2)^2 = \underline{\quad} \times \underline{\quad} = \underline{\quad}$

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

$(5 + 3)^2 - 10$

 $>$

$(5^2 - 2^3) \times 3$

$8^2 - 10 = 54$

$(25 - 8) \times 3 = 51$

$(13 - 7)^2 \div 4$

$\frac{1}{2} \times (6^2 - 4^2)$

$(18 - 3^2)^2$

$8^2 + 4^2 + 1$

$10^2 - (3^3 \times 2)$

$(4 + 3)^2 - 1^3$

$(9 - 5)^2 + (4 + 3)^2$

$(2^4 + 5) \times 3$

$7^2 - (5^2 \times 2)$

$(60 - 8^2) \div 2$



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USING PARENTHESES & EXPONENTS SHEET 5:2 ANSWERS

1) $2^2 \times (3^2 - 4) = 4 \times 5 = 20$

2) $10^2 - (4^2 + 24) = 100 - 40 = 60$

3) $(6^2 - 2^2) \times 2 = 32 \times 2 = 64$

4) $(2^3 + 5^2) \div 3 = 33 \div 3 = 11$

5) $(3 + 2)^2 = 5^2 = 25$

6) $(10 - 4)^2 = 6^2 = 36$

7) $(9 - 7)^3 + (2 + 4)^2 = 8 + 36 = 44$

8) $(25 - 15)^2 - 7^2 = 100 - 49 = 51$

9) $(24 \div 3)^2 - 3^3 = 64 - 27 = 37$

10) $(11 - 3)^2 - 6^2 = 64 - 36 = 28$

11) $(2.5 + 3.5)^2 - 5^2 = 36 - 25 = 11$

12) $50 - (4.2 + 2.8)^2 = 50 - 49 = 1$

13) $10^2 - (2^3 \times 7) = 100 - 56 = 44$

14) $2 \times (3^2 - 2^2)^2 = 2 \times 25 = 50$

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

$$(13 - 7)^2 \div 4$$

$$6^2 \div 4 = 9$$

<

$$\frac{1}{2} \times (6^2 - 4^2)$$

$$\frac{1}{2} \times (36 - 16) = 10$$

$$(18 - 3^2)^2$$

$$9^2 = 81$$

=

$$8^2 + 4^2 + 1$$

$$64 + 16 + 1 = 81$$

$$10^2 - (3^3 \times 2)$$

$$100 - (27 \times 2) = 46$$

<

$$(4 + 3)^2 - 1^3$$

$$7^2 - 1 = 48$$

$$(9 - 5)^2 + (4 + 3)^2$$

$$4^2 + 7^2 = 65$$

>

$$(2^4 + 5) \times 3$$

$$(16 + 5) \times 3 = 63$$

$$7^2 - (5^2 \times 2)$$

$$49 - (25 \times 2) = -1$$

>

$$(60 - 8^2) \div 2$$

$$(-4) \div 2 = -2$$

