



Spiral 4

Power rules.

Express as a single power:

$$3^2 \cdot 3^4 =$$

$$(3^2)^4 =$$

$$6^2 \cdot 3^2 =$$

$$10^4 : 10^4 =$$

$$30^8 : 30^4 =$$

$$5^1 =$$

$$2^2 \cdot 2^4 \cdot 2 =$$

$$4^0 =$$

Absolute value.

$$1. \quad |-1 + 13| =$$

$$3. \quad -|-3 + 1| =$$

$$2. \quad |-3| =$$

$$4. \quad -|-4| =$$

Rounding off.

Fill the gaps:

	Round to the tens	Round to the hundreds	Round to the thousands
123456			
897645			
918273			

Integers. Addition & subtraction.

$$1. \quad -5 + 3 - 1 =$$

$$5. \quad -1 + 4 - 7 - 10 =$$

$$2. \quad -(+4) + (-1) =$$

$$6. \quad -(-4) - (+4) =$$

$$3. \quad 4 - 10 - 2 =$$

$$7. \quad -4 + 5 + (-9 - 3) =$$

$$4. \quad 7 + 3 - 10 =$$

$$8. \quad -(-4 - 4) - (+4 - 2) =$$

Integers. Powers.

1. $-2^4 =$

4. $(-4 + 1)^3 =$

2. $-(-2)^4 =$

5. $(-4 + 1)^2 =$

3. $(-2^4) =$

6. $-(-4 + 1^3) =$

LCM

LCM (8, 12) =

LCM (3, 12, 4) =

LCM (3, 5, 20) =

LCM (6, 4, 10) =

Word problem

Beth is 52 years old and Lara is 20 years younger than her. If Miriam was 5 years older, she would still be 10 years younger than Lara. How old are Lara and Miriam?

Lara is years old.

Miriam is years old.

Word problem

After reading an article about the pollution caused by using plastic bags, Megan wanted to do the maths. Fill in the missing amounts:

- On average, I use 6 plastic bags a week for the shopping. Therefore, in one year (52 weeks) I use bags.
- There are 47 000 000 people in Spain. If one in every five people in Spain uses the same number of plastic bags as me, in one year we would use a total of bags.
- I look for information and find out that manufacturing 250 000 plastic bags releases 1 tonne of CO₂ into the atmosphere. I do the maths and each bag will release g of CO₂.
- In conclusion, if Spanish people did not use plastic bags for their shopping, we would save the atmosphere from tonnes of CO₂. I know what I will do. From now on, I will use fabric bags that can be used many times for my shopping.
They also pollute less.

Combined operations

$$✓ 5 \cdot (-4) + (-3) \cdot (+6) - (-50) =$$

$$✓ 2 - 5 \cdot [7 + (+2) \cdot (-3)] =$$

$$✓ 20 - (15 - 8 - 6) + (5 - 7 - 4) =$$

$$✓ 5 - 4 + 6 - 3 - 7 =$$