Algebraic Expressions Book 2



FUN WORD PROBLEMS DESIGNED SO THAT ANYONE CAN SUCCEED!



For this first problem, simply watch how the problem is solved.
Relax
and focus
on the strategies for solving the problem above.
When the video is complete, copy
the problem into your notebook
or on a piece of paper
for your parent or teacher.
Click on
the photo to watch
this video.

Algebraic Expressions - Challenge 1



🦦 The Stealthy Sea Otters' Fish Heist! 🐟 💰

The Stealthy Sea Otters just sold a bunch of fish from the San Francisco Fisherman's Dock. They stole **three times a number squared of Cod**. Then they stole **5 times the quantity of a number squared plus four of salmon**. Let **X** stand for the cod and salmon fish they stole.

🤔 How much fish did the Stealthy Sea Otters steal?

? Your Challenge:

1. Write an expression that represents the short story above.

> 2. Simplify the expression.

📝 💡 WORK WITH ME

Algebraic Expressions - Challenge 2

Play the video by clicking on the photo.

Pause the video when told.
 Copy the problem down on your own paper, and solve it with me.

• Pay close attention! Your next challenge will be very similar to this one.



🦒 Wrong Way John's Lost Adventures! 🜌 🔄

Wrong Way John gets lost more than any other giraffe in the entire world. Last week, he got lost **six times the quantity of a number times six, plus six** in a strand of acacia trees. Then he got lost **seven plus a number times seven** on the African Plains. Let **X** stand for the times he got lost.

Bow many times did Wrong Way John get lost?

? Your Challenge:

1. Write an expression that represents the short story above.

No. 2. Simplify the expression.

Complete this problems first

Then, *Click on photo to* watch the video and check your answer!

🐻 Grizzly Greg's Honey Feast! 🍯 😋

Algebraic Expressions - Challenge 3

Grizzly Greg is a honey-loving bear. Today, he ate **eight times the quantity of a number times three, plus eight** ounces of honey from the birch tree hive. Then he ate **three less than twenty-one times a number** of ounces from the oak tree hive. Let **X** stand for the ounces of honey.

How much honey did Grizzly Greg eat?

? Your Challenge:

- 1. Write an expression that represents the short story above.
 - 2. Simplify the expression.

Complete this problems first

Then, *Click on photo to* watch the video and check your answer!

Algebraic Expressions - Challenge 4



🐘 Elyssa Elephant's Race to Keep Up! 🏃 🐾

Elyssa Elephant is tired. Her mother has much longer strides than her. In order to keep up, Elyssa took **three less than nine times a number squared** steps before lunch, and another **ten times the quantity of a number squared plus sixteen** steps after lunch. Let **X** stand for the steps Elyssa took.

Bow many steps did Elyssa take in total?

- **?** Your Challenge:
 - 1. Write an expression that represents the short story above.
- 2. Simplify the expression.

Algebraic Expressions - Challenge 5

Complete this problems first

Then, *Click on photo to* watch the video and check your answer!

🙌 🐢 Ferlon's High-Five Marathon!



Ferlon loves giving high-fives to all his friends. Today, he high-fived **four less than seven times a number squared plus 3 times a number** of his neighbors on the north side of town. Then he high-fived **four times the quantity of three times a number squared, plus two** of his neighbors on the south side of town. Let **X** represent the high-fives.

🤔 How many high-fives did Ferlon give?

? Your Challenge:

1. Write an expression that represents the short story above.

No. 2. Simplify the expression.

Algebraic Expressions - Challenge 6

Complete this problems first

Then, *Click on photo to* watch the video and check your answer!



🐊 Stone Cold Kelly's Hunting Spree! 🎯 🐀

Stone Cold Kelly is always on the hunt. She is swift, stealthy, and deadly. Today, she ate **three times the quantity of four times a number cubed**, **plus sixteen** birds and another **six more than eight times a number squared plus four times a number cubed** of river rats. Let **P** represent the prey.

Bow much prey did Stone Cold Kelly eat?

? Your Challenge:

1. Write an expression that represents the short story above.

> 2. Simplify the expression.

Algebraic Expressions - Challenge 7

Complete this problems first

Then, *Click on photo to* watch the video and check your answer!

🦩 Pelican Pete's Golf Ball Prank! 🕹 😂



Pelican Pete drives the golfers at Pebble Beach Golf Club crazy. Every time they hit their ball toward the green, he swoops in, catches the ball, and **drops it into the pond**. Today, he caught **eight less than two times a number squared plus 3 times a number cubed** on the third hole, and another **four times the quantity of eight times a number squared, plus nine times a number cubed** on the fifth hole. Let **X** represent the golf balls.

Bow many balls did Pelican Pete drop into the pond?

- **?** Your Challenge:
 - 1. Write an expression that represents the short story above.
- 2. Simplify the expression.

Algebraic Expressions - Challenge 8

Complete this problems first

Then, *Click on photo to* watch the video and check your answer!

📌 Silvia the Silk-Weaving Spider! 🕸

Silvia spins a new web every day. Today, she spun twelve more than the quantity of two times a number squared plus 3 times a number cubed meters of silk before eating her first bug. Then she spun another three times the quantity of a number squared, plus six times a number cubed meters of silk. Let X represent the meters of silk.

Bow many meters of silk did Silvia spin?

Your Challenge:

- 1. Write an expression that represents the short story above.
- 2. Simplify the expression.



Algebraic Expressions - Challenge 9

- Complete this problems first
- Then, *Click on photo to* watch the video and check your answer!



🕇 Sandy Starfish's Walk Across the Aquarium! 🌋 🐠

Sandy Starfish loves pretending she's a human walking across the aquarium. Today, she took **five times the quantity of four times a number squared plus five times a number cubed** steps into the kelp. Then she took **another two times the quantity of two times a number squared, plus six times a number cubed** steps out of the kelp. Let **X** represent her steps.

Bow many steps did Sandy take?

- **?** Your Challenge:
- 1. Write an expression that represents the short story above.
- 2. Simplify the expression.

Algebraic Expressions - Challenge 10

Complete this problems first

Then, *Click on photo to* watch the video and check your answer!

🦇 Benjamin Bat's Midnight Feast! 🍌 🍯



Benjamin Bat is one hungry mammal. He ate four more than three times the quantity of seven times a number squared plus 3 times a number cubed bites of tomato. Then he ate another nine times the quantity of a number squared, plus eight times a number cubed bites of banana. Let X represent the bites he took.

Bow many bites of food did Benjamin Bat eat?

? Your Challenge:

1. Write an expression that represents the short story above.

2. Simplify the expression.