

adapted from Aguirre & Zavala, 2013

Nana's Birthday Version A

It is Nana Rosa's 65th Birthday.

Her five grandchildren want to buy a special gift. She is a painter.

At the art store they found a professional paint set that comes with lots of paint colors and different size canvases and brushes. The paint set is on sale for \$200.00

- Maya, a 11th grader earns \$60 each week from her book store job.
- Andrea, a 9th grader, earns \$30 each week from babysitting jobs.
- Gabe, a 6th grader, earns \$10 each week taking care of his neighbor's pets.
- Elisa, 4th grader, earn \$5 each week watering plants for the family garden.
- Joaquín, a 2nd grader, has no weekly job but has saved \$8 in his piggy bank.

One of the grandchildren says that they should split the cost of the paint set among them and each pay the same amount. Another sibling says that it is not fair and they should each pay different amounts.

What do you think? What is *fair* in this situation?

TASK:

- Help the grandchildren make a plan to share costs in a fair way to buy the gift.
- Use mathematics to justify your conclusions.
- Your plan should work in other situations where family members want to share costs fairly.

Nana's 65th Birthday Version B

It is Nana Rosa's 65th Birthday

5 of her grandchildren want to buy a special gift. She is a painter.

At the art store they found a professional paint set that comes with lots of paint colors and different size canvases and brushes. The paint set is on sale for \$199.00

- Maya, a 11th grader earns \$60 per week from her book store job.
- Andrea, a 9th grader, earns between \$20-30 each week from babysitting jobs.
- Gabe, a 6th grader, earns \$10 each week taking care of a neighbor's pets.
- Elisa, a 4th grader, earns about \$5 each week watering plants for the family garden.
- Joaquín, a 2nd grader, has no weekly job but has saved \$8 in his piggy bank.

One of the siblings says that they should split the cost of the paint set among them and each pay the same amount. Another sibling says that it is not fair and they should each pay different amounts.

What do you think? What is *fair* in this situation?

TASK:

- Help the grandchildren make a plan to share costs in a fair way to buy the gift.
- Use mathematics to justify your conclusions.
- Your plan should work in other situations where family members want to share costs fairly.