

SCHOLASTIC

APRIL 8, 2019 • VOL. 39 • NO. 9 • ISSN 0198-8379
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MATH

Where Math Gets Real™

Alexandra
GA Math

PERCENTS

The insect
apocalypse

DATA ANALYSIS

Will we still be
using cash
in 20 years?

Scientists are raising red
pandas in captivity to help
the endangered species

▶ALGEBRA

RED PANDA Rescue



evolution in payment systems," the company's CEO said at the time.

Not everyone wants a chip inside their body. But other cashless payment methods aim to work almost as seamlessly. Mobile apps like Venmo and PayPal allow people to send each other money with a few quick phone taps. Android and iPhone users can simply touch their phones to a store's card reader to pay.

A CASHLESS FUTURE?

In 2000, Americans made about 72 billion noncash payments, according to the U.S. Federal Reserve

bank. By 2015, that number was up to 144 billion. Mobile payments still make up only a small fraction of those transactions. But experts like Rogoff expect the number to grow. There are some downsides to going cashless. For instance, using cards and mobile apps makes it easier for companies—and your parents—to track what you buy. For many people, though, the convenience of cashless options outweighs these privacy concerns.

Rogoff thinks Americans will use even less cash in the coming decades. Many countries are already using less cash than we are, he says. China and



Smartphone apps make it easy to pay on the go!

India now have systems where people can pay with a fingerprint or face scan. "You don't bring a card, you just put your fingerprint down," says Rogoff. "In the future, your identity is cash."

—Mara Grunbaum

COMPARING DATA

online



2 SKILLS SHEETS

Economists analyze people's spending habits to look for trends and predict what might happen in the future. They might compare data from different groups of people or see how spending changes over time.



Use the graphs to compare the spending habits of two age groups of Americans and analyze the most popular payment methods in the U.S.

1 A. The circle graphs above show the payment methods used most often by two age groups of Americans. Which method(s) do people 22 and under use most?

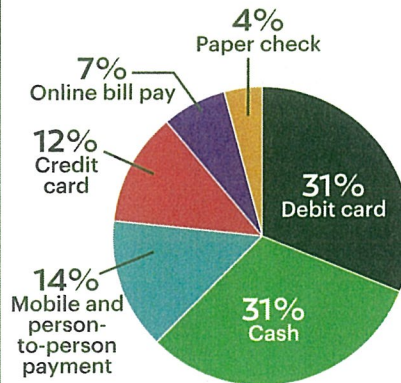
Cash and Debit Card

1B. Which method(s) do people ages 55 to 73 use most?

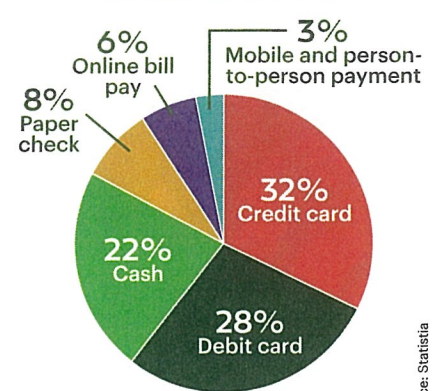
Credit card

MOST FREQUENTLY USED PAYMENT METHODS IN 2017

AGES 22 AND UNDER



AGES 55 TO 73



Note: Figures may not total 100 percent because of rounding.

Source: Statista

2 Which age group uses mobile and person-to-person payments for more of their purchases?

Ages 22 and Under

3 Which payment method has the biggest difference in use between the age groups in the graphs?

People ages 55 to 73 use credit while the younger people use Debit so credit card

4 Which payment method do both groups use in almost the same proportion?

Online bill pay

5 What is one conclusion you can draw about the two groups' spending habits by looking at both circle graphs? Explain your reasoning.

That young people like to stay safe in money and old people don't. Not true at all. Debit and credit

STRANGE CASH

Not all money is coin or paper. Here are some unique currencies that have been used throughout history.



SALT

1200 B.C. - 1900s

In many ancient societies, salt was used as money. The word "salary" comes from the Latin word "salarium," which was a Roman soldier's allowance to buy salt.



SHELLS

1200 B.C. - PRESENT

Across Asia and Africa, cowrie shells were used as money. Native Americans used clamshells. It's where the nickname "clams" comes from. Shell money is still used in the Solomon Islands today.



RAI STONES

1200 B.C. - PRESENT

Yap, an island in Micronesia, uses donut-shaped stone disks as money. Diameters range from 1.4 inches up to 12 feet!



TEA BRICKS

1800s - 1940s

In parts of Asia, bricks of tea were used as payment. In Siberia and Tibet, tea was preferred to coins.

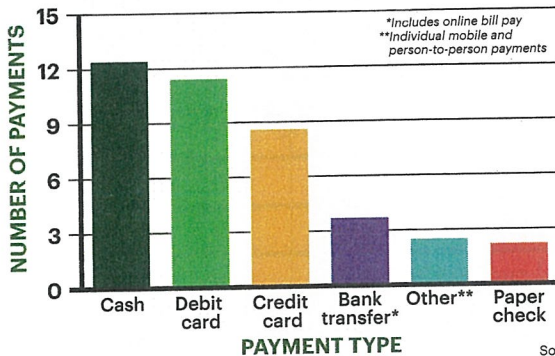


PARMESAN CHEESE

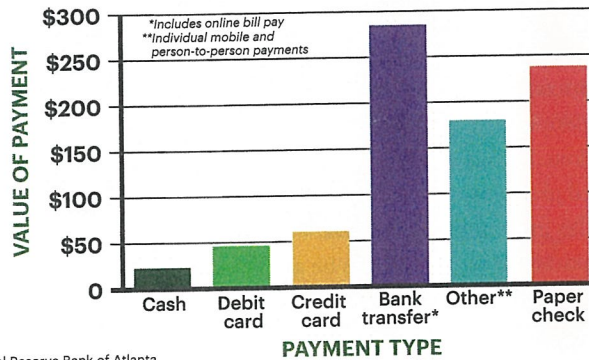
1953 - PRESENT

A bank in Northern Italy accepts wheels of cheese as collateral for loans. The length of the loan is 34 months—the time it takes for the cheese to age!

AVERAGE NUMBER OF U.S. PAYMENTS PER PERSON BY TYPE, OCTOBER 2017



AVERAGE VALUE OF PAYMENTS BY PAYMENT TYPE PER TRANSACTION, OCTOBER 2017



Source: Federal Reserve Bank of Atlanta

6 A. The bar graphs above show how often all American adults used different payment methods and the average amount they paid in each transaction in October 2017. Which payment method did people use for the greatest number of transactions?

Cash

6B. Which payment method did people use for the most expensive transactions?

Bank transfer

7 A. What is the approximate total amount of money an average American spent in cash in October 2017? (Hint: Use information from both bar graphs to calculate this.)

\$325

7B. What is the approximate total they paid by credit card?

\$480

8 Based on the bar graphs, what is one thing you can conclude about how Americans

use different payment methods? Explain your reasoning.

Well for the circle graph the debit and credit were popular and Bank transfers and cash we use a lot of checks and cash

9 A. Based on all four graphs, do you think Americans are likely to stop using cash soon? Explain your answer.

Because we use credit and debit cards

9B. What additional data might help support your prediction?

The circle graph does