

# Pay Smart Math

Compare costs before you choose a payment method.

GRADE 8 • TEKS 8.12.E

**8.12.E** "identify and explain the advantages and disadvantages of different payment methods;"

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## COMPARE TOTAL COSTS

Find the total cost for each payment method before deciding which is better. Subtract discounts, then add fees or interest. A lower cost is one advantage, but paying later can also be useful.

## WORKED EXAMPLE

A \$45 hoodie has a 12% cash discount. Paying by debit adds a \$4 fee. Which costs less?

1. Cash discount:  $0.12 \times 45 = \$5.40$

2. Cash total:  $\$45 - \$5.40 = \$39.60$

3. Debit total:  $\$45 + \$4 = \$49.00$

4. Compare:  $\$49.00 - \$39.60 = \$9.40$

**Answer: Cash costs less. It costs \$39.60, which is \$9.40 less than debit.**

## PRACTICE 5 problems

- 1** A \$28 game has a 5% cash discount. Debit has no fee. Find both totals. Which costs less?

ANSWER \_\_\_\_\_

- 2** A \$50 online order has no debit fee. Credit adds a 7% fee. Find both totals and name credit's disadvantage.

ANSWER \_\_\_\_\_

- 3** A \$24 concert ticket can be paid with cash or a prepaid card with a \$2.50 fee. Find both totals.

ANSWER \_\_\_\_\_

- 4** A store lets you pay \$80 for bike accessories with cash or credit. The credit bill is paid on time, so there is no interest. Compare the totals and give one advantage of credit.

ANSWER \_\_\_\_\_

- 5** A \$35 item is paid with debit or credit. Credit adds 9% interest. Find both totals and name credit's disadvantage.

ANSWER \_\_\_\_\_

## APPLY IT Show your work

- 1** You want a \$27 phone case. Cash gives a 10% discount. Debit earns a 3% reward based on the price. Find the cash cost and the debit effective cost after the reward. Which method saves more?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** Your club needs \$120 of fundraiser supplies. Debit costs \$120 now. A pay-later plan requires 1/4 down today, the rest later, and a \$6 service fee. What is the total cost of each method? State one advantage and one disadvantage of the pay-later plan.

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

A \$200 tablet has a 15% discount for cash or debit. Credit also gets the discount, but adds an 8% fee to the discounted price and is due next month. Find the total for debit and credit. Which total is lowest? Explain one advantage of credit despite its cost.

WORK SPACE AND ANSWER

## PART 1 • PRACTICE

| # | PROBLEM                                                                                                                                                                            | ANSWER                                                                                                  |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1 | A \$28 game has a 5% cash discount. Debit has no fee. Find both totals. Which costs less?                                                                                          | <b>Cash: \$26.60; debit: \$28.00. Cash costs less.</b>                                                  |
| 2 | A \$50 online order has no debit fee. Credit adds a 7% fee. Find both totals and name credit's disadvantage.                                                                       | <b>Debit: \$50.00; credit: \$53.50. Credit costs \$3.50 more.</b>                                       |
| 3 | A \$24 concert ticket can be paid with cash or a prepaid card with a \$2.50 fee. Find both totals.                                                                                 | <b>Cash: \$24.00; prepaid card: \$26.50. Cash costs less.</b>                                           |
| 4 | A store lets you pay \$80 for bike accessories with cash or credit. The credit bill is paid on time, so there is no interest. Compare the totals and give one advantage of credit. | <b>Cash: \$80.00; credit: \$80.00. Credit can let you pay later without extra cost if paid on time.</b> |
| 5 | A \$35 item is paid with debit or credit. Credit adds 9% interest. Find both totals and name credit's disadvantage.                                                                | <b>Debit: \$35.00; credit: \$38.15. Credit costs \$3.15 more.</b>                                       |

## PART 2 • APPLY IT

- Cash costs \$24.30. Debit has an effective cost of \$26.19 after the \$0.81 reward. Cash saves \$1.89 more.** Subtract 10% of \$27 for cash. For debit, subtract the 3% reward from \$27, then compare the two results.
- Debit costs \$120.00. The pay-later plan costs \$126.00. Its advantage is paying part later; its disadvantage is the \$6 fee.** The down payment is \$30 and the remaining balance is \$90. Add the \$6 service fee to the full \$120 price.

## CHALLENGE

**Debit: \$170.00. Credit: \$183.60. Debit is lower, and cash would also be \$170.00. Credit's advantage is that payment is due next month.**

Accept equivalent money notation, such as 26.6 for \$26.60. Accept any accurate explanation of a payment method's stated fee, discount, or delayed-payment feature.