

Lesson Summary

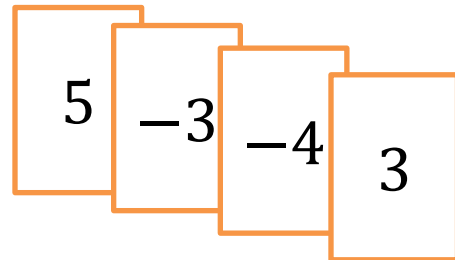
Multiplying integers is repeated addition and can be modeled with the Integer Game. If $3 \times a$ corresponds to what happens to your score if you get three cards of value a , then $(-3) \times a$ corresponds to what happens to your score if you lose three cards of value a . Adding a number multiple times has the same effect as removing the opposite value the same number of times (e.g., $a \times b = (-a) \times (-b)$ and $a \times (-b) = (-a) \times b$).

Problem Set

1. Describe sets of two or more matching integer cards that satisfy the criteria in each part below:

- Cards increase the score by eight points.
- Cards decrease the score by 9 points.
- Removing cards that increase the score by 10 points.
- Positive cards that decrease the score by 18 points.

2. You have the integer cards shown at the right when your teacher tells you to choose a card to multiply four times. If your goal is to get your score as close to zero as possible, which card would you choose? Explain how your choice changes your score.



3. Sherry is playing the Integer Game and is given a chance to discard a set of matching cards. Sherry determines that if she discards one set of cards, her score will increase by 12. If she discards another set, then her score will decrease by eight. If her matching cards make up all six cards in her hand, what cards are in Sherry's hand? Are there any other possibilities?