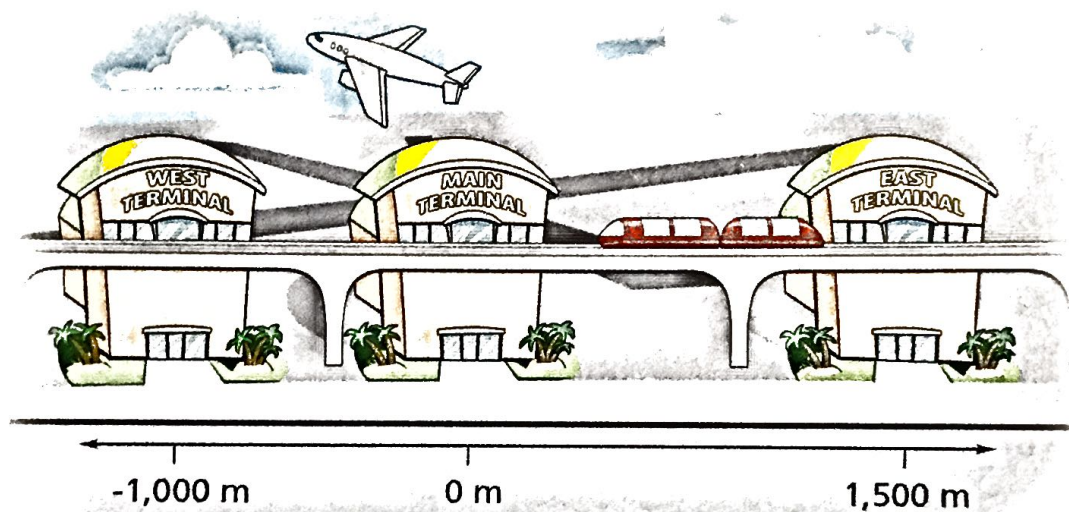


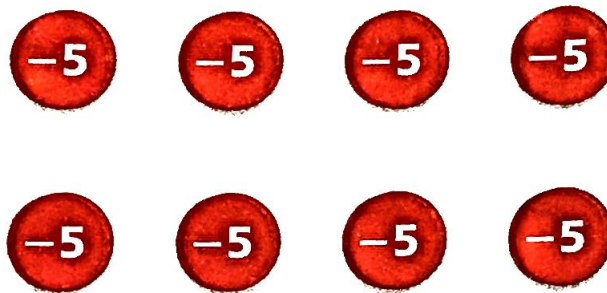
Applications

1. At some international airports, trains carry passengers between the separate terminal buildings. Suppose that one such train system moves along a track like the one below.



- a. A train leaves the main terminal going east at 10 meters per second. Where will it be in 10 seconds? When will it reach the east terminal?
- b. A train passes the main terminal going east at 10 meters per second. Where was that train 15 seconds ago? When was it at the west terminal?
- c. A train leaves the main terminal going west at 10 meters per second. Where will it be in 20 seconds? When will it reach the west terminal?
- d. A train passes the main terminal going west at 10 meters per second. When was it at the east terminal? Where was it 20 seconds ago?

2. Julia thinks a bit more about how to use red and black chips to model operations with integers. She draws the following chip board. She decides it represents $8 \times (-5) = -40$ and $-40 \div 8 = -5$. Explain why Julia's reasoning makes sense.



Use Julia's reasoning from Exercise 2 to find each value.

3. $10 \times (-5)$

4. $4 \times (-15)$

5. $3 \times (-5)$

6. $-14 \div 2$

7. $-14 \div 7$

8. $-35 \div 7$

9. Find each product.

a. $7 \cdot 2$

b. $-7 \cdot (-2)$

c. $7 \cdot (-2)$

d. $-7 \cdot 2$

e. $8 \cdot 2.5$

f. $-9 \cdot (-4)$

g. $12 \cdot (-3)$

h. $-1.5 \cdot 4$

i. $3.5 \cdot 7$

j. $-8.1 \cdot (-1)$

k. $1 \cdot (-6)$

l. $-2\frac{1}{2} \cdot 1$

Connections

- 37.** The temperature changed -2°F per hour from noon on Tuesday until 10:00 A.M. the next morning. The temperature at noon on Tuesday is shown.
- What was the temperature at 4:00 P.M. on Tuesday?
 - What was the temperature at 9:00 A.M. on Wednesday?

Write a number sentence to represent each situation. Then answer the question.

- 38.** The Extraterrestrials have a score of -300 . They answer four 50-point questions incorrectly. What is

