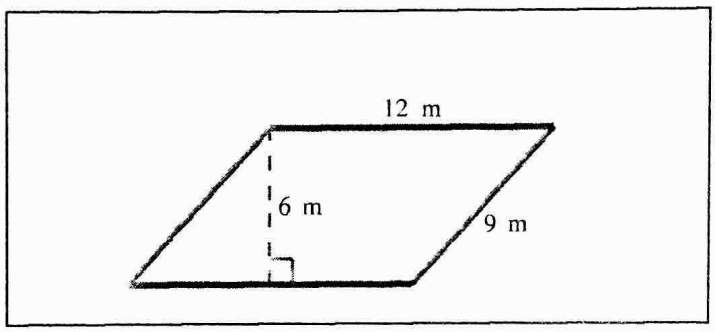
# ALEKS® MSTEP 7th grade practice #1

**1.** Add.

$$-4+(-4) =$$
$$4+(-5) =$$

**2.** Find the area of this parallelogram. Be sure to include the correct unit in your answer.




**3.** Write $5\frac{39}{40}$ as a decimal.

**4.** Solve for $x$.

$$-15.8 = -3.3 + \frac{x}{5}$$

**5.** A construction crew built $\frac{1}{2}$ miles of road in $\frac{1}{4}$ days.

What is the unit rate in miles per day?

Write your answer in simplest form.

**6.** Simplify.

$$4(w-3)-8w$$

**7.** The equation $\frac{u+13}{6} = -4$ is solved in several steps below.

For each step, choose the reason that best justifies it.

| Step | Reason |
|---|---|
| $\frac{u+13}{6} = -4$ | Given equation |
| $6 \cdot \frac{u+13}{6} = -4 \cdot 6$ | - Addition Property of Equality<br>- Subtraction Property of Equality<br>- Multiplication Property of Equality<br>- Division Property of Equality<br>- Simplifying<br>- Distributive Property |
| $u + 13 = -24$ | - Addition Property of Equality<br>- Subtraction Property of Equality<br>- Multiplication Property of Equality<br>- Division Property of Equality<br>- Simplifying<br>- Distributive Property |
| $u + 13 - 13 = -24 - 13$ | - Addition Property of Equality<br>- Subtraction Property of Equality<br>- Multiplication Property of Equality<br>- Division Property of Equality<br>- Simplifying<br>- Distributive Property |
| $u = -37$ | - Addition Property of Equality<br>- Subtraction Property of Equality<br>- Multiplication Property of Equality<br>- Division Property of Equality<br>- Simplifying<br>- Distributive Property |

**8.** Fill in the blanks. Then, choose the property of multiplication you used.

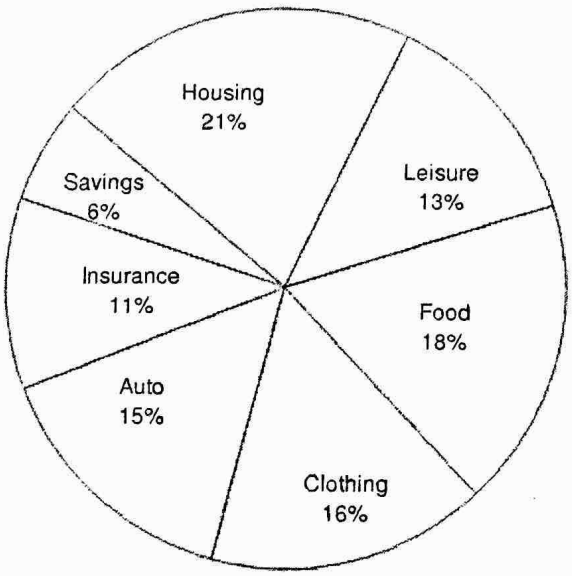
| Fill in the blanks | Choose the property of multiplication shown |
|---|---|
| (a) $0 \times 5 = \square$ | a) Associative Property<br>b) Commutative Property<br>c) Identity Property<br>d) Zero Property |
| (b) $1 \times \square = 5$ | a) Associative Property<br>b) Commutative Property<br>c) Identity Property<br>d) Zero Property |
| (c) $\square \times (2 \times 6) = (3 \times 2) \times 6$ | a) Associative Property<br>b) Commutative Property<br>c) Identity Property<br>d) Zero Property |
| (d) $5 \times \square = 9 \times 5$ | a) Associative Property<br>b) Commutative Property<br>c) Identity Property<br>d) Zero Property |

(d) Look at the degree of overlap between the data sets.
Also look at your answer from part (c).
Then select the best choice below.

- There is a complete overlap and the distance between the means is 0.
- There is a complete overlap and the distance between the means is greater than 10 times the MAD.
- There is some overlap and the distance between the means is between 1 times the MAD and 10 times the MAD.
- There is some overlap and the distance between the means is between 0 and 1 times the MAD.
- There is no overlap and the distance between the means is greater than 10 times the MAD.
- There is no overlap and the distance between the means is between 1 times the MAD and 10 times the MAD.

**21.** Write $\frac{13}{3}$ as a decimal. If necessary, use a bar to indicate which digit or group of digits repeats.

**22.** The circle graph shows how a family budgets its annual income. If the total annual income is $65,000, what amount is budgeted for Food?




**23.** Use the distributive property to remove the parentheses.
Simplify your answer as much as possible.

$$\frac{2}{5}(4-15w)$$