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1. Simplify each of the following expressions.
a) $-2(-6)$
b) $-2-6$
c) $-2-(-6)$
d) $2(-6)$
2. Cyprus has a number cube with the numbers 1 through 6 on it. Assuming each side is equally likely to appear when he rolls the cube, find the following probabilities, and write them as a fraction.
a) P (rolls an odd number)
b) P (rolls a factor of 4 )
3. Simplify each expression. Show your work.
a) $\left(2 \frac{2}{3}\right)^{2}$
b) $218 \frac{2}{7}-118 \frac{1}{2}$
4. Alina's rectangular living-room floor measures 12 feet by 15 feet.
a) How many square feet of carpet will Alina need to cover the entire floor?
b) The carpet Alina likes is sold by the square yard. How many square yards will she need?
5. Evaluate each expression when $\mathrm{a}=3, \mathrm{~b}=5, \mathrm{x}=7$, and $\mathrm{y}=10$.
a) $\mathrm{ba}^{2}$
b) $a+x(b-y)$

## Answers on next page.

## Answers

1. a) 12
b) -8
c) 4
d) -12
2. a) $\frac{3}{6}$ or $\frac{1}{2}$
b) $\frac{3}{6}$ or $\frac{1}{2}$
3. a) $7 \frac{1}{9}$
b) $99 \frac{11}{14}$
4. a) $180 \mathrm{ft}^{2}$
b) $20 \mathrm{yd}^{2}$
5. a) 45
b) -32
