Multiplying Fractions and Whole Numbers

11-1

You can find the product of a fraction and a whole number.

Tran needs $\frac{2}{3}$ yard of fabric to sew a pair of shorts. How many yards of fabric will Tran need to sew 6 pairs of shorts?

Step 1. Multiply the numerator by the whole number.

$$2 \times 6 = 12$$

$$\frac{12}{3}$$
 = 4 yards of fabric

Remember: In word problems, "of" means "multiply."

Example: $\frac{3}{5}$ of $15 = \frac{3}{5} \times 15$

In questions 1-4, find each product. Simplify if possible.

1.
$$\frac{1}{3} \times 60 =$$

2.
$$\frac{3}{4}$$
 of 32 = _____

3.
$$\frac{7}{8} \times 40 =$$

4.
$$\frac{2}{7}$$
 of 35 = _____

For questions **5–7**, use the table to the right.

- **5.** What is $\frac{1}{7}$ the speed of a cheetah?
- **6.** What is $\frac{1}{5}$ the speed of a cat?
- **7.** What is $\frac{1}{5}$ the speed of a jackal?

Animal	Speed (in mi/h)
Cat	30
Cheetah	70
Jackal	35