



## Convert rates with compatible units

**1**

A beetle takes  $\frac{2}{7}$  seconds to crawl a foot. How long, in seconds, does it take to crawl a yard?

$$\frac{2}{7} \frac{s}{ft} \text{ is } ? \frac{s}{yrd}$$

A  $\times \frac{1 \text{ min}}{60 \text{ s}}$

B  $\times 3 \frac{ft}{yrd}$

C  $\times \frac{1 \text{ yrd}}{3 \text{ ft}}$

**2**

A beetle takes 2 seconds to crawl a foot. How long, in seconds, does it take to crawl a yard?

$$2 \frac{s}{ft} \text{ is } ? \frac{s}{yrd}$$

A  $\times \frac{1 \text{ yrd}}{3 \text{ ft}}$

B  $\times 60 \frac{s}{min}$

C  $\times 3 \frac{ft}{yrd}$

D  $\times \frac{1 \text{ min}}{60 \text{ s}}$

**3**

A beetle takes  $\frac{7}{5}$  seconds to crawl a foot. How long, in seconds, does it take to crawl a yard?

$$\frac{7}{5} \frac{s}{ft} \text{ is } ? \frac{s}{yrd}$$

A  $\frac{7 \text{ s}}{5 \text{ ft}} \cdot 60 \frac{s}{min}$

B  $\frac{7 \text{ s}}{5 \text{ ft}} \cdot \frac{1 \text{ yrd}}{3 \text{ ft}}$

C  $\frac{7 \text{ s}}{5 \text{ ft}} \cdot 3 \frac{ft}{yrd}$

**4**

Finish this unit rate conversion problem

$$7 \frac{yrd}{s} \cdot 3 \frac{ft}{yrd}$$

A  $\frac{3 \text{ s}}{7 \text{ s}}$

B  $\frac{7 \text{ s}}{21 \text{ s}}$

C  $\frac{21 \text{ s}}{4 \text{ s}}$

D  $21 \frac{ft}{s}$

E  $\frac{7 \text{ s}}{3 \text{ s}}$

F  $\frac{1 \text{ s}}{21 \text{ s}}$

**5**

A worm takes 4 minutes to move a foot. How long, in seconds, does it take to move a yard?

$$4 \frac{min}{ft} \text{ is } ? \frac{s}{yrd}$$

A  $\times 3 \frac{ft}{yrd} \times 60 \frac{s}{min}$

B  $\times \frac{1 \text{ min}}{60 \text{ s}} \times \frac{1 \text{ min}}{60 \text{ s}}$

C  $\times \frac{1 \text{ yrd}}{3 \text{ ft}} \times \frac{1 \text{ min}}{60 \text{ s}}$

**6**

A caterpillar takes 4 minutes to move a yard. How long, in seconds, does it take to move a foot?

$$4 \frac{min}{yrd} \text{ is } ? \frac{s}{ft}$$

A  $4 \frac{min}{yrd} \cdot 3 \frac{ft}{yrd} \cdot \frac{1 \text{ min}}{60 \text{ s}}$

B  $4 \frac{min}{yrd} \cdot \frac{1 \text{ yrd}}{3 \text{ ft}} \cdot \frac{1 \text{ min}}{60 \text{ s}}$

C  $4 \frac{min}{yrd} \cdot \frac{1 \text{ yrd}}{3 \text{ ft}} \cdot 60 \frac{s}{min}$

D  $4 \frac{min}{yrd} \cdot 60 \frac{s}{min} \cdot \frac{1 \text{ min}}{60 \text{ s}}$

**7**

Finish this unit rate conversion problem

$$\frac{5 \text{ min}}{6 \text{ ft}} \cdot 3 \frac{ft}{yrd} \cdot 60 \frac{s}{min}$$

A  $\frac{6 \text{ ft}}{900 \text{ ft}}$

B  $\frac{5 \text{ ft}}{1080 \text{ ft}}$

C  $\frac{1080 \text{ s}}{5 \text{ ft}}$

D  $\frac{1080 \text{ ft}}{11 \text{ ft}}$

E  $\frac{6 \text{ ft}}{904 \text{ ft}}$

F  $\frac{900 \text{ s}}{6 \text{ yrd}}$

**Convert rates with compatible units****8**

A bird flies at 2 feet per second. What is its speed in yards per minute?

$$2 \frac{ft}{s} \text{ is } ? \frac{yrd}{min}$$

A

$$2 \frac{ft}{s} \cdot 60 \frac{s}{min} \cdot \frac{1 min}{60 s}$$

B

$$2 \frac{ft}{s} \cdot \frac{1 yrd}{3 ft} \cdot \frac{1 min}{60 s}$$

C

$$2 \frac{ft}{s} \cdot 3 \frac{ft}{yrd} \cdot \frac{1 min}{60 s}$$

D

$$2 \frac{ft}{s} \cdot \frac{1 yrd}{3 ft} \cdot 60 \frac{s}{min}$$

**9**

An ant crawls 7 yards each second. What is its speed in feet per second?

$$7 \frac{yrd}{s} \text{ is } ? \frac{ft}{s}$$

A

$$\frac{21 ft}{7 s}$$

B

$$\frac{1 ft}{21 s}$$

C

$$21 \frac{ft}{s}$$

D

$$\frac{5 ft}{7 s}$$

E

$$\frac{7 ft}{21 s}$$

F

$$\frac{3 ft}{7 s}$$

**10**

A bird flies at 5 feet per second. What is its speed in yards per minute?

$$5 \frac{ft}{s} \text{ is } ? \frac{yrd}{min}$$

A

$$\frac{3 yrd}{300 min}$$

B

$$\frac{15 yrd}{60 min}$$

C

$$\frac{300 yrd}{3 min}$$

D

$$\frac{67 yrd}{15 min}$$

E

$$\frac{60 yrd}{15 min}$$

F

$$\frac{15 yrd}{63 min}$$

**11**

A caterpillar takes 7 minutes to move a yard. How long, in seconds, does it take to move a foot?

$$7 \frac{min}{yrd} \text{ is } ? \frac{s}{ft}$$

A

$$\frac{423 s}{3 ft}$$

B

$$\frac{60 s}{21 ft}$$

C

$$\frac{420 s}{3 ft}$$

D

$$\frac{21 s}{60 ft}$$

E

$$\frac{3 s}{420 ft}$$

**12**

A beetle crawls 3/3 feet each second. How many yards does it crawl each second?

$$\frac{3 ft}{3 s} \text{ is } ? \frac{yrd}{s}$$

A

$$\frac{3 yrd}{15 s}$$

B

$$\frac{12 yrd}{3 s}$$

C

$$\frac{3 yrd}{11 s}$$

D

$$\frac{3 yrd}{9 s}$$