

Interpret rates as comparisons of quantities

1

What is the (simplest) ratio of boys to girls?

boys : 3
girls : 4

A
3:4B
10:6C
6:6D
9:7**2**

Divide these numbers

$$\frac{0.8}{0.1}$$

A 8	B 8,000	C 80
D 0.08	E 800	F 0.8

3

total weight: 1.75 kg unit price: 10.71 \$/kg

A
17 \$B
18.75 \$C
17.25 \$D
16.75 \$**4**A beetle crawls $\frac{2}{8}$ feet each second. How many yards does it crawl each second?

$$\frac{2 \text{ ft}}{8 \text{ s}} \text{ is } ? \frac{\text{ yrd}}{\text{ s}}$$

A $\frac{2 \text{ ft}}{8 \text{ s}} \cdot 3 \frac{\text{ ft}}{\text{ yrd}}$

B $\frac{2 \text{ ft}}{8 \text{ s}} \cdot 60 \frac{\text{ s}}{\text{ min}}$

C $\frac{2 \text{ ft}}{8 \text{ s}} \cdot \frac{1 \text{ yrd}}{3 \text{ ft}}$

5An ant takes $\frac{5}{6}$ seconds to crawl a yard. How long, in seconds, does it take to crawl a foot?

$$\frac{5 \text{ s}}{6 \text{ yrd}} \text{ is } ? \frac{\text{ s}}{\text{ ft}}$$

A $\frac{5 \text{ s}}{6 \text{ yrd}} \cdot \frac{1 \text{ min}}{60 \text{ s}}$

B $\frac{5 \text{ s}}{6 \text{ yrd}} \cdot \frac{1 \text{ yrd}}{3 \text{ ft}}$

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

6

An ant crawls 3 yards each second. What is its speed in feet per second?

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

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

B $\frac{1 \text{ ft}}{9 \text{ s}}$

C $9 \frac{\text{ ft}}{\text{ s}}$

D $\frac{6 \text{ ft}}{3 \text{ s}}$

E $12 \frac{\text{ ft}}{\text{ s}}$

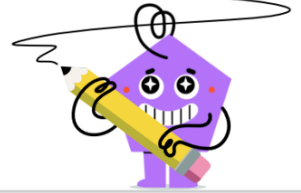
7

total weight: 12 kg total cost: 15 \$

A
1.5 \$/kgB
1.75 \$/kgC
1.25 \$/kgD
0.5 \$/kg**8**

Bug A crawls 2dam in 8hr. Bug B crawls 2dam in 0.21d. Which is faster?

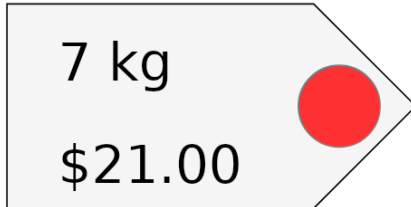
A
Bug AB
Bug B



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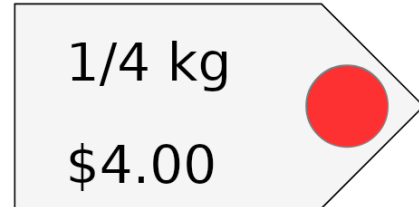
What is the price per kg of this item?



- A \$2.00/kg B \$3.00/kg C \$4.00/kg D \$1.00/kg

10

What is the price per kg of this item?



- A \$16.75/kg B \$16.00/kg C \$15.75/kg D \$17.25/kg

11

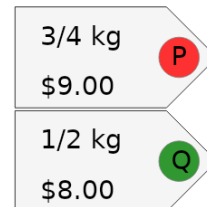
A worm takes 5 minutes to move a foot. How long, in seconds, does it take to move a yard?

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

- A $\frac{5 \text{ s}}{180 \text{ yrd}}$ B $\frac{900 \text{ s}}{\text{yrd}}$ C $\frac{1 \text{ s}}{900 \text{ yrd}}$
D $\frac{8 \text{ s}}{180 \text{ yrd}}$ E $\frac{9 \text{ s}}{180 \text{ yrd}}$ F $\frac{180 \text{ s}}{5 \text{ yrd}}$

12

Which option has the lowest price per kg?



- A Q B P

13

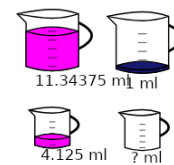
A bird flies at 4 feet per second. What is its speed in yards per minute?

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

- A $\frac{5 \text{ yrd}}{240 \text{ min}}$ B $\frac{3 \text{ yrd}}{244 \text{ min}}$ C $\frac{242 \text{ yrd}}{3 \text{ min}}$
D $\frac{12 \text{ yrd}}{60 \text{ min}}$ E $\frac{240 \text{ yrd}}{3 \text{ min}}$ F $\frac{60 \text{ yrd}}{12 \text{ min}}$

14

This paint color needs 1 ml of blue for every 11.34375 ml of magenta. How much blue is needed if you have 4.125 ml of magenta?



- A 0.11 ml B 1.39 ml C 0.36 ml D 0.39 ml

15

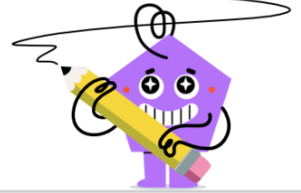
Spaceship A flies 40hm in 8ms. Spaceship B flies 500dam in 7ms. Which is faster?

- A
Spaceship B
- B
Spaceship A

16

A bacteria moves 10cm in 5d. How fast is this in cm/hr?

- A 0.0833 cm/hr
- B 1,200 cm/hr
- C 0.8 cm/hr
- D 0.3 cm/hr



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17

A spaceship flies 2,400m in 60ms. How fast is this in dm/s?

- A 40,000 dm/s
- B 40,000,000 dm/s
- C 400,000 dm/s
- D 1,440 dm/s

18

Bug A crawls 50cm in 80min. Bug B crawls 500mm in 3,600s. Which is faster?

A

Bug A

B

Bug B

19

Bug A crawls 2dam in 5min. Bug B crawls 5dam in 5min. Which is faster?

A

Bug B

B

Bug A

20

A bug crawls 1,600cm in 80min. How fast is this in dam/min?

A 0.2 dam/min

B 128 dam/min

C 0.02 dam/min

D 0.1 dam/min