Worksheets to print out from sofatutor.com

Getting the Job Done—Speed

1. **Identify the distance formula.**
2. Find the distance travelled.
3. Determine the time it took to travel.
4. Find the missing values.
5. Comparing rates.
6. Calculate the missing rate.

\+ with many hints, answer keys, and solution approaches for all tasks

The complete package, **including all tasks, hints, solutions, and solution approaches**, is available to all subscribers of sofatutor.com

© 2017 sofatutor GmbH, Berlin, Germany. All rights reserved. V21631

sofatutor.com

Identify the distance formula.

Select formulas that correctly express the relationship between distance, rate, and time.

- [ ] **A** $d = r \cdot t$
- [ ] **B** $r = d \cdot t$
- [ ] **C** $r = \frac{d}{t}$
- [ ] **D** $t = \frac{r}{d}$
- [ ] **E** $\frac{d}{r} = t$
- [ ] **F** $t \cdot r = d$
- [ ] **G** $r = d \cdot t$
- [ ] **H** $\frac{t}{r} = d$

© 2017 sofatutor GmbH, Berlin, Germany. All rights reserved. V21631 | E33526

sofatutor.com

Our hints for the tasks

1 from 6

Identify the distance formula.

1. Hint

Multiplication is commutative. That means:

$a \cdot b = b \cdot a$

---

2. Hint

Equality is commutative. That means:

If $a = b$ then $b = a$.

---

3. Hint

Below is an example of the process for dividing both sides of an equation to solve for a variable. In this example, we will solve for t:

Equation	Explanation
$d = r \cdot t$	The equation for distance.
$\frac{d}{r} = \frac{r \cdot t}{r}$	Dividing both sides by r.
$\frac{d}{r} = t$	Canceling r on the right.
$t = \frac{d}{r}$	Commutative property of equality.

© 2017 sofatutor GmbH, Berlin, Germany. All rights reserved. V21631

Solutions and solution approaches for the tasks

1 from 6

Identify the distance formula.

Answer key: A, C, E, F

- $d = r \cdot t$ **True** This is the most common way of writing the equation relating distance, rate, and time.
- $r = d \cdot t$ **False** The correct method for solving for r is shown below.

Equation	Explanation
$d = r \cdot t$	The equation for distance.
$\frac{d}{t} = \frac{r \cdot t}{t}$	Dividing both sides by t.
$\frac{d}{t} = r$	Canceling t on the right.
$r = \frac{d}{t}$	Commutative property of equality.

- $r = \frac{d}{t}$ **True** See above.
- $t = \frac{r}{d}$ **False** The correct method for solving for t is shown below:

Equation	Explanation
$d = r \cdot t$	The equation for distance.
$\frac{d}{r} = \frac{r \cdot t}{r}$	Dividing both sides by r.
$\frac{d}{r} = t$	Canceling r on the right.
$t = \frac{d}{r}$	Commutative property of equality.

- $\frac{d}{r} = t$ **True** See above. Look at the second to last line.
- $t \cdot r = d$ **True** See below.

Equation	Explanation
$d = r \cdot t$	The equation for distance.
$r \cdot t = d$	Commutative property of equality.
$t \cdot r = d$	Commutative property of multiplication.

- $r = d \cdot t$ **False** See above for the correct method for solving for r.
- $\frac{t}{r} = d$ **False** $d = r \cdot t$.

© 2017 sofatutor GmbH, Berlin, Germany. All rights reserved. V21631