

Calculate the distance

1. 3h @ 60km/h

$$\text{Distance} = \text{Speed} \times \text{Time}$$

↓
in hours

$$D = ST$$
$$D = 60(3)$$

$$D = 180 \text{ km}$$

3. $\frac{1}{2}$ h @ 90km/h

$$D = ST$$
$$D = 90(0.5)$$
$$D = 45 \text{ km}$$

How long does trip take

45 40km @ 80km/h



$$T = \frac{D}{S}$$

$$T = \frac{40}{80}$$

$$T = 0.5h$$

or $\frac{1}{2}h$

7.

20km @ 100km/h

$$T = \frac{D}{S}$$

$$T = \frac{20}{100}$$

$$T = 0.2h$$
$$0.2 \times 60 = 12 \text{ min}$$

9. 300 km in 3h

$$S = \frac{D}{T}$$

$$S = \frac{300 \text{ km}}{3 \text{ h}}$$

$$S = 100 \text{ km/h}$$



12. 40 km in $\frac{1}{2}$ h

$$S = \frac{D}{T}$$

$$S = \frac{40}{0.5}$$

$$S = 80 \text{ km/h}$$

Distance

Speed(km/h)

Time(h)

17.

$90(x+1)$
 $90x + 90$

90

$x+1$

$\frac{200}{x}$

19.

200

x

21.

rt
 $5t$

5

t
 t

23.

D

$\frac{D}{t}$

t

24. ^{Given} A cruise ship left Halifax for Bermuda @ 20 km/h. A private boat left for Bermuda an hour later at 25 km/h

Find: How long did it take ^{private} boat to catch up?



	Distance	Speed	Time
Cruise ship	$20x$	20 km/h	x
Private boat	$25(x-1)$	25 km/h	$x-1$

Let x = time for cruise ship $\therefore$ it takes the private boat 4 hours to catch up

$$\begin{aligned}
 20x &= 25(x-1) \\
 20x &= 25x - 25 \\
 -5x &= -25 \\
 x &= 5
 \end{aligned}$$

26. Given: Two friends leave home at the same time. Elsa is driving 80km/h from Winnipeg, and Gina 90km/h from Edmonton. Total distance is 1360km

Find: how long did it take them to meet

	Distance	Speed	Time
Elsa	$80x$	80km/h	x
Gina	$90x$	90km/h	x
Total	1360		

Let x = the time for both

$$80x + 90x = 1360$$

$$170x = 1360$$

$$x = 8$$

It takes them 8h to meet if they don't stop.

Homework:

"Are you ready for the Test"
needs to be completed

pg. 377 - all

Chapter Review pg 384: #60-69
#73, 74, 75

