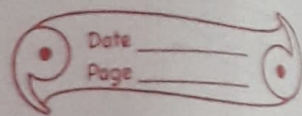


13.1.2 Exercise 20(A)

Hw 1. convert



a) 15 hours into minutes

$$1 \text{ hr} = 60 \text{ min}$$

$$15 \text{ hr} = 15 \times 60 = 900 \text{ min}$$

b) 9 hr 56 min into min

$$1 \text{ hr} = 60 \text{ min}$$

$$9 \text{ hr } 56 \text{ min} = 9 \times 60 + 56 =$$

$$540 + 56 = 596 \text{ min}$$

c) 36 min into Sec

$$1 \text{ min} = 60 \text{ Sec}$$

$$36 \text{ min} = 36 \times 60 = 2160 \text{ Sec}$$

d) 12 min 28 Sec into Sec

$$1 \text{ min} = 60 \text{ Sec}$$

$$12 \text{ min } 28 \text{ Sec} = 12 \times 60 + 28 =$$

$$720 + 28 = 748 \text{ Sec}$$

e) 5 days into hours

$$1 \text{ days} = 24 \text{ hrs}$$

$$5 \text{ days} = 5 \times 24$$

$$= 120 \text{ hrs.}$$

f) 12 days 9 hrs into hrs

1 day = 24 hr

12 days 9 hrs = $12 \times 24 + 9$
 $= 288 + 9 = 297$ hrs

g) 11 hrs 45 min to min

1 hr = 60 min

11 hrs 45 min = $11 \times 60 + 45$
 $660 + 45 = 705$ min

2. convert

a) 5 yrs 9 months into month

1 year = 12 months

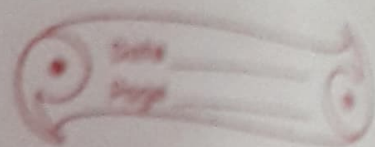
5 yrs 9 months = $5 \times 12 + 9$
 $60 + 9 = 69$ months

b) 9 weeks into days

1 week = 7 days

9 weeks = $9 \times 7 = 63$ days

Hw
③ 13.1.21



c) 12 week 15 days into days

$$1 \text{ week} = 7 \text{ day}$$

$$12 \text{ week } 15 \text{ days} = 12 \times 7 + 15$$

$$84 + 15 = 99 \text{ days}$$

d) 7 weeks into hours

$$1 \text{ week} = 7 \text{ days}$$

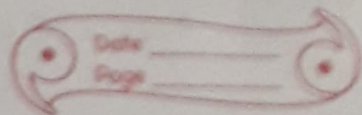
$$7 \text{ week} = 7 \times 7 = 49 \text{ days}$$

$$1 \text{ days} = 24 \text{ hrs}$$

$$49 \text{ days} = 49 \times 24$$

$$= 1176 \text{ hrs}$$

13.1.21



F) 2 ~~years~~ 10 months into months

1 year = ~~12 months~~ 12 months

2 years 10 months = $2 \times 12 + 10$
 $24 + 10 = 34$ months

G) 3 days 5 hours 30 min into minutes

1 day = 24 hrs

1 hr = 60 min

3 days 5 hours 30 min
 $= 3 \times 24 = 72$ hrs ~~30 min~~
 $= 72 + 5 = 77$

$77 \times 60 + 30 = 4620 + 30$
 $= 4650$ min

E) 12 weeks 10 hrs into hrs

1 week = 7 days

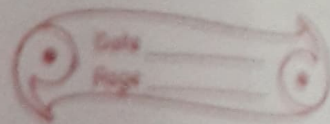
1 days = 24 hrs

12 weeks 10 hrs = $12 \times 7 = 84$ days

$84 \times 24 + 10 = 2016 + 10$
 $= 2026$ hrs

Hw

3. convert



a. 1 day into sec

Ans

$$1 \text{ day} = 24 \text{ hrs}$$

$$1 \text{ hrs} = 60 \text{ min}$$

$$24 \text{ hrs} = 24 \times 60 = 1440 \text{ min}$$

$$1 \text{ min} = 60 \text{ Sec}$$

$$1440 \text{ min} = 1440 \times 60 = 86400 \text{ sec}$$

b) 5 week into sec

$$1 \text{ week} = 7 \text{ days}$$

$$5 \text{ week} = 5 \times 7 = 35 \text{ days}$$

$$1 \text{ day} = 24 \text{ hrs}$$

$$35 \text{ days} = 35 \times 24 = 840$$

hrs

$$1 \text{ hrs} = 60 \text{ min}$$

$$840 \text{ hrs} = 840 \times 60 = 50400 \text{ min}$$

$$1 \text{ min} = 60 \text{ sec}$$

$$50400 \text{ min} = 50400 \times 60 = 3024000 \text{ sec}$$

c) 2 months into seconds

$$1 \text{ month} = 30 \text{ days}$$

$$2 \text{ months} = 30 \times 2 = 60 \text{ days}$$

$$1 \text{ day} = 24 \text{ hrs}$$

$$60 \text{ days} = 60 \times 24 = 1440 \text{ hrs}$$

$$1 \text{ hr} = 60 \text{ min}$$

$$1440 \text{ hrs} = 1440 \times 60 = 86400 \text{ min}$$

$$1 \text{ min} = 60 \text{ sec}$$

$$86400 \text{ min} = 86400 \times 60 = 5184000 \text{ sec}$$

4) convert

a) 812 Sec into min & sec

$$1 \text{ min} = 60 \text{ sec}$$

$$\begin{array}{r} 13 \\ 60 \overline{) 812} \\ \underline{-60} \\ 212 \\ \underline{-180} \\ 32 \end{array}$$

So, 13 min 32 sec

b) 924 min into hour & min

1 hour = 60 min

$$\begin{array}{r}
 15 \\
 \hline
 60 \overline{) 924} \\
 \underline{- 60} \\
 324 \\
 \underline{- 300} \\
 24
 \end{array}$$

So, 15 hr ~~0~~ 24 min

c) 105 hours into day & hours

1 day = 24 hrs

$$\begin{array}{r}
 4 \\
 \hline
 24 \overline{) 105} \\
 \underline{- 96} \\
 9
 \end{array}$$

4 days 9 hours

d) 745 hrs into days & hours

1 day = 24 hrs

$$\begin{array}{r} 31 \\ 24 \overline{) 745} \\ \underline{-720} \\ 25 \\ \underline{-24} \\ 1 \end{array}$$

31 days 1 hours

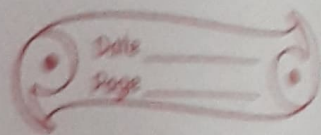
e) 1024 min into hrs & min

1 hour = 60 min

$$\begin{array}{r} 17 \\ 60 \overline{) 1024} \\ \underline{-600} \\ 424 \\ \underline{-420} \\ 4 \end{array}$$

17 hrs & 4 min

5) convert



a) 512 days into weeks & days

1 week = 7 days

$$\begin{array}{r} 73 \\ 7 \overline{) 512} \\ \underline{-49} \\ 22 \\ \underline{-21} \\ 1 \end{array}$$

73 weeks 1 days.

b) 365 day into weeks & days

1 week = 7 days

$$\begin{array}{r} 52 \\ 7 \overline{) 365} \\ \underline{-35} \\ 15 \\ \underline{-14} \\ 1 \end{array}$$

52 weeks 1 days

c) 52 month into years & months

1 year = 12 month

$$\begin{array}{r} 4 \\ 12 \overline{) 52} \\ \underline{-48} \\ 4 \end{array}$$

So, 4 years 4 months

d) 86 months into years & months

1 year = 12 months

$$\begin{array}{r} 7 \\ 12 \overline{) 86} \\ \underline{-84} \\ 2 \end{array}$$

7 year 2 months

E) 342 days into months & day

1 month = 30

$$\begin{array}{r}
 11 \\
 30 \overline{) 342} \\
 \underline{-30} \\
 42 \\
 \underline{-30} \\
 12
 \end{array}$$

11 month 12 days

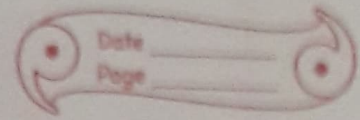
F) 784 days in months & days

1 month = 30 days

$$\begin{array}{r}
 26 \\
 30 \overline{) 784} \\
 \underline{-60} \\
 184 \\
 \underline{-180} \\
 4
 \end{array}$$

26 months 4 days

6) convert



a) 16 hrs 600 Sec into min

$$1 \text{ hr} = 60 \text{ min}$$

$$16 \text{ hours} = 16 \times 60 = 960 \text{ min}$$

$$600 \div 60 = 10 \text{ min}$$

$$960 + 10 = 970 \text{ min}$$

b) 9 hrs 360 min into min

$$1 \text{ hr} = 60 \text{ min}$$

$$9 \text{ hrs} = 9 \times 60 = 540$$

$$360 \div 60 = 6 \text{ min}$$

$$540 + 6 = 546 \text{ min}$$

c) 2 days 180 min into hrs

$$1 \text{ day} = 24 \text{ hrs}$$

$$2 \text{ days} = 24 \times 2 = 48 \text{ hrs}$$

$$180 \text{ min} = \frac{180}{60} = 3 \text{ hours}$$

2 days 180 min

$$48 + 3 \text{ hrs} = 51 \text{ hours}$$

d) 9 days 420 min into hrs

$$1 \text{ day} = 24 \text{ hrs}$$

$$9 \text{ days} = 24 \times 9 = 216 \text{ hrs}$$

$$420 \text{ min} = \frac{420}{60} = 7 \text{ hrs}$$

9 days 420 min

$$216 + 7 = 223 \text{ hours}$$