

Ch-20 -
Time
Ex-20 (A)

classmate

Date _____

Page _____

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1) Convert :

a) 15 hrs into minutes.

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

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

56

b) 9 hrs ₅₆ min into minutes

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

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

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

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 seconds

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

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

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

e) 5 days into hours

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

$$5 \text{ days} = 5 \times 24 = 120 \text{ hrs}$$

f) 12 days 9 hrs into hours

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

$$12 \text{ day } 9 \text{ hr} = 12 \times 24 + 9$$
$$= 288 + 9 = 297 \text{ hrs}$$

g) 11 hours 45 minutes into minutes.

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

$$11 \text{ hr } 45 \text{ min} = 11 \times 60 + 45$$
$$= 660 + 45 = 705 \text{ min}$$

2) Convert

a) 5 yrs 9 months into months

$$1 \text{ year} = 12 \text{ month}$$

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

b) 9 weeks into days

$$\begin{aligned} 1 \text{ week} &= 7 \text{ days} \\ 9 \text{ weeks} &= 9 \times 7 = 63 \text{ days} \end{aligned}$$

c) 12 weeks 15 days into days

$$\begin{aligned} 1 \text{ week} &= 7 \text{ days} \\ 12 \text{ weeks } 15 \text{ days} &= 12 \times 7 + 15 \\ &= 84 + 15 = 99 \text{ days} \end{aligned}$$

d) 7 weeks into hours

$$\begin{aligned} 1 \text{ week} &= 7 \text{ days} \\ 7 \text{ weeks} &= 7 \times 7 = 49 \text{ days} \\ 1 \text{ day} &= 24 \text{ hr} \\ 49 \text{ days} &= 49 \times 24 \\ &= 1176 \text{ hours} \end{aligned}$$

e) 12 weeks 10 hours into hours

$$\begin{aligned} 1 \text{ week} &= 7 \text{ days} \\ \text{12 weeks 10 hours} &= \end{aligned}$$

3) Convert:

a) 1 day into seconds

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

$$1 \text{ hr} = 3600 \text{ sec}$$

$$24 \text{ hrs} = 24 \times 3600 = 86400 \text{ sec}$$

b)

b) 5 weeks into seconds.

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

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

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

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

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

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

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

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

c. 2 months into seconds

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

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

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

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

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

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

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

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

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2) Convert:

f) 2 years 10 months into months.

$$\begin{aligned} 1 \text{ year} &= 12 \text{ months} \\ 2 \text{ yrs } 10 \text{ months} &= 2 \times 12 + 10 \\ &= 24 + 10 = 34 \text{ months} \end{aligned}$$

g) 3 days 5 hours 30 minutes into ~~days~~ minutes

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

$$3 \text{ days} = 24 \times 3 = 72 \text{ hours}$$

$$1 \text{ hour} = 60 \text{ minutes}$$

$$72 \text{ hours} = 60 \times 72 = 4320 \text{ minutes}$$

$$5 \text{ hours} = 60 \times 5 = 300 \text{ minutes}$$

$$\begin{aligned} 3 \text{ days } 5 \text{ hours } 30 \text{ minutes} \\ = (4320 + 300 + 30) \text{ minutes} = 4650 \text{ minutes} \end{aligned}$$

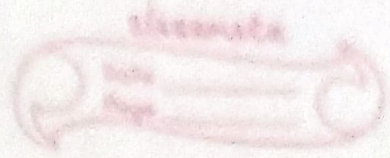
4) Convert

a) 812 seconds into minutes and seconds

$$60 \text{ seconds} = 1 \text{ minute}$$

$$812 \div 60 \text{ minutes}$$

$$= 13 \text{ minutes } 32 \text{ seconds}$$



d) 924 minutes into hours and minutes.

$$60 \text{ seconds} = 1 \text{ minute}$$

$$924 \div 60 \text{ hours} =$$

$$= 15 \text{ hours } 24 \text{ minutes}$$

c) 105 hours into days and hours.

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

$$105 \div 24 = \text{days}$$

$$= 4 \text{ days } 9 \text{ hours}$$

d) 745 hours into days and hours.

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

$$745 \div 24 = \text{days}$$

$$= 31 \text{ days } 1 \text{ hour}$$

e) 1024 minutes into hours and minutes.

$$60 \text{ minutes} = 1 \text{ hour}$$

$$1024 \div 60 \text{ hours} =$$

$$= 17 \text{ hours } 4 \text{ minutes}$$

5) Convert:

a) 512 days into weeks and days

$$\begin{aligned} 7 \text{ days} &= 1 \text{ week} \\ 512 \div 7 \text{ weeks} &= \\ &= 73 \text{ weeks } 1 \text{ day} \end{aligned}$$

b) 365 days into weeks and days

$$\begin{aligned} 7 \text{ days} &= 1 \text{ week} \\ 365 \div 7 \text{ weeks} &= \\ &= 52 \text{ weeks } 1 \text{ day} \end{aligned}$$

c) 52 months into years and months

$$\begin{aligned} 12 \text{ months} &= 1 \text{ year} \\ 52 \div 12 \text{ years} &= \\ &= 4 \text{ years } 4 \text{ months} \end{aligned}$$

d) 86 months into years and months

$$\begin{aligned} 12 \text{ months} &= 1 \text{ year} \\ 86 \div 12 \text{ years} &= \\ &= 7 \text{ years } 2 \text{ months} \end{aligned}$$

e) 342 days into months and days.

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

$$342 \div 30 \text{ months} =$$

$$= 11 \text{ months } 12 \text{ days}$$

f) 784 days into months and days

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

$$784 \div 30 \text{ months} =$$

$$= 26 \text{ months } 4 \text{ days}$$

g) Convert

a) 16 hours 600 seconds into minutes

$$1 \text{ hour} = 60 \text{ minutes}$$

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

$$60 \text{ second} = 1 \text{ minutes}$$

$$600 \text{ seconds} = 600 \div 60 = 10 \text{ minutes}$$

$$16 \text{ hours } 600 \text{ seconds} =$$

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

b) 9 hours 360 seconds into minutes

$$1 \text{ hour} = 60 \text{ minutes}$$

$$9 \text{ hours} = (60 \times 9) = 540 \text{ minutes}$$

$$60 \text{ seconds} = 1 \text{ minutes}$$

$$360 \text{ seconds} = (360 \div 60) = 6 \text{ minutes}$$

$$9 \text{ hours } 360 \text{ seconds} \\ = (540 + 6) = 546 \text{ minutes}$$

c) 2 days 180 minutes into hours

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

$$2 \text{ days} = (24 \times 2) \text{ hours} = 48 \text{ hours}$$

$$60 \text{ minutes} = 1 \text{ hour}$$

$$180 \text{ minutes} = (180 \div 60) = 3 \text{ hours}$$

$$2 \text{ days } 180 \text{ minutes} \\ = (48 + 3) \text{ hours} = 51 \text{ hours}$$

d) 9 days 420 minutes into hours

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

$$9 \text{ days} = (24 \times 9) \text{ hours} = 216 \text{ hours}$$

$$60 \text{ minutes} = 1 \text{ hour}$$

$$420 \text{ minutes} = 420 \div 60 = 7$$

$$9 \text{ days } 420 \text{ minutes} =$$

$$(21 \times 7) \text{ hours} = 223 \text{ hours}$$