START Main

# Constants

SET MaxSize TO 450

SET MaxWeight TO 30

# Customer Info

SET name TO STR INPUT

SET address TO STR INPUT

SET phoneNumber TO STRINPUT

# Parcels to Collect

SET parcelsToCollect TO INT INPUT

LOOP WHILE NOT(1 <= parcelsToCollect AND parcelsToCollect <= 6)

DISPLAY "invalid input not between 1 and 6"

SET parcelsToCollect TO INT INPUT

END LOOP

# Parcels

SET parcels TO 0

SET parcelList TO ARRAY of PARCEL

LOOP WHILE parcels < parcelsToCollect

SET parcel TO CreateParcel()

ADD parcel TO parcelList

INCREMENT parcels

END LOOP

# Customer Details

DISPLAY "Customer"

DISPLAY " " name

DISPLAY " " address

DISPLAY " " phoneNumber

# Parcel Details

SET parcels TO 0

SET totalCost TO 0

LOOP WHILE parcels < parcelsToCollect

INCREMENT parcels

DISPLAY "Parcel " parcels

SET cost TO ParcelCost(parcelList AT parcels)

# Uncollectable

IF cost = NULL

DISPLAY " Cannot be collected"

# Collectable

ELSE

DISPLAY " Cost: £" cost

# Add additional charges

IF parcel.tracked

DISPLAY " Tracking: + £5.00"

SET cost TO cost + 5

ENDIF

IF parcel.signature

DISPLAY " Signature: + £2.00"

SET cost TO cost + 2

ENDIF

# Show total package cost if additional charges

IF parcel.tracked OR parcel.signature

DISPLAY " Total Cost: £" cost

ENDIF

SET totalCost TO totalCost + cost

ENDIF

END LOOP

# Overall cost of total collection

DISPLAY "Collection Cost: £" totalCost

END Main

# Represents a parcel

STRUCT PARCEL

height IS INT

length IS INT

width IS INT

weight IS INT

tracked IS BOOL

signature IS BOOL

ENDSTRUCT

# Create a single parcel

START CreateParcel()

SET parcel

SET parcel.height TO INT INPUT

SET parcel.length TO INT INPUT

SET parcel.width TO INT INPUT

SET parcel.weight TO INT INPUT

SET parcel.tracked TO BOOL INPUT

SET parcel.signature TO BOOL INPUT

END CreateParcel RETURN parcel

# Calculate the cost of a parcel

START ParcelCost(parcel IS PARCEL)

SET cost

SET size TO parcel.height + parcel.length + parcel.width

IF size > MaxSize OR parcel.weight > MaxWeight

cost = NULL

ELSE IF size > 150 OR weight > 15

cost = 30

ELSE IF size > 95 OR weight > 2

cost = 20

ELSE

cost = 5

ENDIF

END ParcelCost RETURN cost