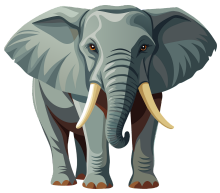

Problem of the Week

Problem A and Solution

Zookeeper

Problem

Zoey works at the city's zoo feeding and caring for the animals. Her schedule is the same every morning. She starts work at 7:00 a.m. The table below lists the sequence of morning activities, along with the duration of each activity. The durations include the time it takes to travel to each spot.

Activity	**Duration of Activity**
Team meeting	$\frac{1}{2}$ hour
Feeding the elephants	30 minutes
Moving tropical birds to outside habitat	45 minutes
Filling the monkey feed bins with fruit and nuts	30 minutes
Break	15 minutes
Changing the hay for the camels	45 minutes
Feeding the walruses and seals	$\frac{3}{4}$ hour
Washing down the rhino stalls	$\frac{1}{2}$ hour
Lunch break	half an hour

(a) What time does Zoey start feeding the elephants?

(b) What time does the monkey feeding start?

(c) What time does Zoey's break end?

(d) How long is it from the time the team meeting starts to the time Zoey's lunch break ends?

Solution

We add two columns to the table, one with the start time of the activity and one with the end time. From this table, we can answer the questions.

Activity	**Duration of Activity**	**Start Time**	**End Time**
Team meeting	$\frac{1}{2}$ hour	7:00	7:30
Feeding the elephants	30 minutes	7:30	8:00
Moving tropical birds to outside habitat	45 minutes	8:00	8:45
Filling the monkey feed bins with fruit/nuts	30 minutes	8:45	9:15
Break	15 minutes	9:15	9:30
Changing the hay for the camels	45 minutes	9:30	10:15
Feeding the walruses and seals	$\frac{3}{4}$ hour	10:15	11:00
Washing down the rhino stalls	$\frac{1}{2}$ hour	11:00	11:30
Lunch break	half an hour	11:30	12:00

(a) Zoey starts feeding the elephants at 7:30 a.m.

(b) The monkey feeding starts at 8:45 a.m.

(c) Zoey's break ends at 9:30 a.m.

(d) Since the lunch break ends at 12:00 p.m., it is 5 hours after the team meeting starts.