More Practice: Word Problems
Math 10 · Mr. Merrick · February 5, 2026

1. A coffee shop blends two types of beans. One bean costs $9 per kg and the other costs $15 per kg. How many kilograms of each should be mixed to make 80 kg of coffee that sells for $12 per kg?

2. A delivery truck travels part of a trip at 70 km/h and the rest at 90 km/h. The total distance is 420 km and the total driving time is 5.5 hours. How long did the truck travel at each speed?

3. A lab technician mixes a 30% acid solution with a 70% acid solution to make 500 mL of a 54% solution. How much of each solution is used?

4. A student travels 9 km to school. She cycles part of the way at 12 km/h and walks the rest at 4 km/h. The total travel time is 1.25 hours. How far does she cycle?

5. A snack mix contains almonds, cashews, and peanuts. Almonds cost $18 per kg, cashews $14 per kg, and peanuts $6 per kg. A total of 50 kg of mix is made and sold for $12 per kg. There are twice as many kilograms of peanuts as almonds.

   How many kilograms of each nut are used?

6. A road trip is made in three stages. The driver travels part of the trip at 50 km/h, part at 90 km/h, and part at 60 km/h. The total distance is 480 km and the total driving time is 7 hours. The time spent driving at 90 km/h is twice the time spent driving at 50 km/h.

   How long is each stage of the trip?

7. A movie theatre sells adult, youth, and senior tickets. Adult tickets cost $14, youth tickets $10, and senior tickets $9.

   On one evening:

   - 320 tickets were sold
   - The total revenue was $3760
   - Twice as many adult tickets were sold as senior tickets

   How many tickets of each type were sold?

8. A fundraiser sells three types of items: mugs, T-shirts, and hoodies. Mugs sell for $8 each, T-shirts for $15 each, and hoodies for $35 each.

   At the end of the event:

   - A total of 140 items were sold
   - The total revenue was $2620
   - The number of T-shirts sold was 20 more than the number of mugs sold

   How many of each item were sold?

9. A shipment of grain is made by mixing wheat, barley, and oats. Wheat costs $320 per tonne, barley costs $280 per tonne, and oats cost $200 per tonne.

A total of 60 tonnes of grain is shipped with a total value of $16,800. The mass of wheat is equal to the average of the masses of barley and oats.

How many tonnes of each grain are included in the shipment?