Exercise 10-2 (20 minutes)

1.

Number of helmets	35,000
Standard kilograms of plastic per helmet	× 0.6
Total standard kilograms allowed	21,000
Standard cost per kilogram	× RM 8
Total standard cost	RM 168,000
Actual cost incurred (given)	RM 171,000
Total standard cost (above)	168,000
Total material variance—unfavorable	RM 3,000

2.

Actual Quantity of Input, at Actual Price (AQ × AP)	Actual Quantity of Input, at Standard Price (AQ × SP)	Standard Quantity Allowed for Output, at Standard Price (SQ × SP)
	22,500 kilograms × RM 8 per kilogram	21,000 kilograms* × RM 8 per kilogram
RM 171,000	= RM 180,000	= RM 168,000

Price Variance, RM 9,000 F

Quantity Variance, RM 12,000 U

Total Variance, RM 3,000 U

*35,000 helmets × 0.6 kilograms per helmet = 21,000 kilograms

Alternatively:

Materials price variance = AQ (AP – SP)
22,500 kilograms (RM 7.60 per kilogram* – RM 8.00 per kilogram)
= RM 9,000 F

* RM 171,000 ÷ 22,500 kilograms = RM 7.60 per kilogram

Materials quantity variance = SP (AQ – SQ)
RM 8 per kilogram (22,500 kilograms – 21,000 kilograms)
= RM 12,000 U