Question 1 **(5 marks)**

(a) Calculate Maya's pay for a 7 hour shift. (2 marks)

Solution
$24.50 \times 7 = \$171.50$

Specific behaviours
✓ correct method, hourly rate × hours
✓ correct value, $171.50

(b) On Saturdays, Maya is paid at 1.5 times her normal hourly rate. Calculate her pay for a 6 hour Saturday shift. (3 marks)

Solution
Saturday rate $= 24.50 \times 1.5 = \$36.75$ per hour
$36.75 \times 6 = \$220.50$

Specific behaviours
✓ correct Saturday hourly rate, $36.75
✓ correct method, rate × hours
✓ correct value, $220.50

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Question 2 **(5 marks)**

(a) A jacket is priced at $84.00 and is on sale with a 25% discount. Calculate the sale price of the jacket. (2 marks)

Solution
84.00 × 0.75 = $63.00

Specific behaviours
✓ correct method, 84.00 × (1 − 0.25)
✓ correct value, $63.00

(b) A café bill of $110.00 includes 10% GST. Calculate how much of this total is GST. (3 marks)

Solution
GST included = 110.00 ÷ 11
= $10.00

Specific behaviours
✓ recognises GST included is one eleventh of the total
✓ correct method, 110.00 ÷ 11
✓ correct value, $10.00

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Question 3 **(5 marks)**

(a) Calculate the interest Jake earns after 3 years. (3 marks)

Solution
$I = P \times r \times t$
$I = 2000 \times 0.04 \times 3$
$I = \$240.00$

Specific behaviours
✓ correct method, $I = P \times r \times t$
✓ correctly substitutes values
✓ correct value, $240.00

(b) Calculate the total amount in Jake's account after 3 years. (2 marks)

Solution
$2000 + 240 = \$2240.00$

Specific behaviours
✓ correct method, principal plus interest
✓ correct value, $2240.00

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Question 4 **(6 marks)**

(a) Calculate Priya's total weekly expenses. (2 marks)

Solution
280 + 120 + 45 + 35 + 60
= $540

Specific behaviours
✓ correctly adds all five expenses
✓ correct value, $540

(b) Calculate how much money Priya has left over each week after her expenses. (1 mark)

Solution
650 − 540 = $110

Specific behaviours
✓ correct value, $110

(c) Priya wants to save $660 for a holiday. If she saves all of her weekly leftover amount, calculate how many weeks it will take her to reach this goal. (3 marks)

Solution
660 ÷ 110
= 6 weeks

Specific behaviours
✓ correct method, goal divided by weekly leftover amount
✓ correctly uses her leftover amount of $110 from part (b)
✓ correct value, 6 weeks

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Question 5 **(6 marks)**

(a) Calculate the total value of Ben's investment after 3 years if the interest is simple interest. (2 marks)

Solution
$I = 5000 \times 0.05 \times 3 = \$750$
Total $= 5000 + 750 = \$5750.00$

Specific behaviours
✓ correct simple interest, \$750
✓ correct total value, \$5750.00

(b) Calculate the total value of Ben's investment after 3 years if the interest is compound interest, compounded annually. (3 marks)

Solution
$A = 5000 \times (1.05)^3$
$A = 5000 \times 1.157625$
$A = \$5788.13$

Specific behaviours
✓ correct method, $A = P \times (1 + r)^n$
✓ correctly substitutes values
✓ correct value, \$5788.13 (to the nearest cent)

(c) State which type of interest is better for Ben, and calculate the difference. (1 mark)

Solution
Compound interest gives a better return, by $5788.13 - 5750.00 = \$38.13$

Specific behaviours
✓ correctly identifies compound interest as better, with the correct difference of \$38.13

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