For Examiner's Use

1 Anna, Bobby and Carl receive a sum of money.
They share it in the ratio 12 : 7 : 8 .
Anna receives \$504.

(a) Calculate the **total** amount.

$\frac{12+7+8}{12} \times \$504 = \frac{27}{12} \times \$504$
$= \$1134$

Answer(a) \$ 1134 [3]

(b) **(i)** Anna uses 7% of her \$504 to pay a bill.
Calculate how much she has left.

$\frac{7}{100} \times \$504 = \$35.28$

$\$504 - \$35.28 = \$468.72$

Answer(b)(i) \$ 468.72 [3]

(ii) She buys a coat in a sale for \$64.68.
This was 23% less than the original price.
Calculate the original price of the coat.

Original Price	Discount	Sale Price
100 %	23 %	77 %
x		\$ 64.68

$x = \frac{100}{77} \times \$64.68$
$= \$84$

Answer(b)(ii) \$ 84 [3]

(c) Bobby uses \$250 of his share to open a bank account.
This account pays compound interest at a rate of 1.6% per year.
Calculate the amount in the bank account after 3 years.
Give your answer correct to 2 decimal places.

Total amount $= 250\left(1 + \frac{1.6}{100}\right)^3$
$= 250(1.016)^3$
$= \$262.193024$
$\approx \$262.19$

Answer(c) \$ 262.19 [3]

(d) Carl buys a computer for \$288 and sells it for \$324.
Calculate his percentage profit.

Profit $= \$324 - \$288$
$= \$36$

$\frac{36}{288} \times 100\% = 12.5\%$

Answer(d) 12.5 % [3]