**Assessment type:** Test3 calculator allowed

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

To be completed in class under test conditions

**Task weighting:** 14% of the school mark for the Semester **Mark \_\_\_\_\_\_\_\_\_\_\_\_/25**

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In a car park there are 20 cars. 10 cars are white, 5 are blue, 3 are black and 2 are red. What fraction of the cars are black?

The following nutrition information is shown on a bread label. The numbers are rounded to whole numbers.  
*Serving size–2 slices (80 g)  
Protein 7 g  
Fat 3 g  
Carbohydrates 33 g*

1. What fraction of the serving size is fat?
2. What fraction of the serving size is other than what is given here?

Share $15 between two friends in the ratio 1:2.

Share $100 among three friends in the ratio 1:1:1. Explain what could be done in real-life.



Apricot lassi is a drink from India.

*Ingredients*

*2 cups canned apricot, with juice*

*1 teaspoon honey*

*1 cup low-fat yoghurt, natural or vanilla*

*6 ice cubes*

*Blend all ingredients in a food processor until foamy. Serve immediately.*

*Serves 2 .*

Write down the ingredients and quantities to make the drink for 3 people.

6.

Amanda works on Thursday evening and Saturday at her local supermarket. She is paid $8.40 per hour. This is a casual rate before deductions such as tax. On Thursday she works from 5 pm to 9.30 pm and on Saturday from 12.30 pm to 6 pm.

1. How many hours does Amanda work each week?
2. Calculate her weekly pay at the casual rate.

7.

Justin is 22. He works full-time as a registered plumber. Justin’s basic hourly rate of pay is $18.28.

1. Justin works a 38-hour week. What is his weekly rate of pay?
2. Calculate Justin’s annual salary, assuming 52 weeks in the year.

As well as paying the employee, the employer contributes 9% to the employee’s superannuation.

1. Calculate the employer weekly contribution to Justin’s superannuation. Round the answer to the nearest cent.

Justin’s friend, Matthew, is also a 22 year-old registered plumber. Matthew works as a casual employee. The loading for casual employees is 20% on top of the base rate.

1. What is Matthew’s hourly rate of pay? Round the answer to the nearest cent.

8.

The individual income tax rates for the 2007-2008 financial year are shown in the following table.

**Tax rates 2007 - 08**

|  |  |
| --- | --- |
| *Taxable income* | *Tax on this income* |
| $1 - $6,000 | Nil |
| $6,001 - $30,000 | 15c for each $1 over $6,000 |
| $30,001- $75,000 | $3,600 plus 30 c for each dollar over $30,000 |
| $75,001- $150,000 | $17,100 plus 40 c for each dollar over $75,000 |
| $150,001and over | $47,100 plus 45 c for each dollar over $150,000 |

Australian Taxation Office

Use the tax table to calculate the amount of tax payable on the following taxable incomes:

1. $25 000

1. $37 000

1. $150 000

**Solutions**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1.

In a car park there are 20 cars. 10 cars are white, 5 are blue, 3 are black and 2 are red. What fraction of the cars are black?

**3/20 ✓**

2.

The following nutrition information is shown on a bread label. The numbers are rounded to whole numbers.  
*Serving size–2 slices (80 g)  
Protein 7 g  
Fat 3 g  
Carbohydrates 33 g*

1. What fraction of the serving size fat?

**3/80 ✓**

1. What fraction of the serving size is other than what is given here?

**37/80 ✓**

3.

Share $15 between two friends in the ratio 1:2.

**$5, $10 ✓**

4.

Share $100 among three friends in the ratio 1:1:1. Explain what could be done in real-life.

**$33.30 ✓ Smallest coin of legal tender is 5c. The remaining 10c can’t be shared in the ratio 1:1:1. ✓ (If using a cheque or some other non-coin method accept $33.33 but there must be a comment about the 1c.)**

5.

Apricot lassi is a drink from India.

*Ingredients*

*2 cups canned apricot, with juice*

*1 teaspoon honey*

*1 cup low-fat yoghurt, natural or vanilla*

*6 ice cubes*

*Blend all ingredients in a food processor until foamy. Serve immediately.*

*Serves 2 .*

Write down the ingredients and quantities to make the drink for 3 people.

**3 cups canned apricot, with juice, 1.5 teaspoons honey,1.5 cups low-fat yoghurt, natural or vanilla, 9 ice cubes (✓✓✓ -1 each error)**

6.

Amanda works on Thursday evening and Saturday at her local supermarket. She is paid $8.40 per hour. This is a casual rate before deductions such as tax. On Thursday she works from 5 pm to 9.30 pm and on Saturday from 12.30 pm to 6 pm.

1. How many hours does Amanda work each week?

**10 hours ✓**

1. Calculate her weekly pay at the casual rate.

**$84 ✓**

7.

Justin is 22. He works full-time as a registered plumber. Justin’s basic hourly rate of pay is $18.28.

1. Justin works a 38-hour week. What is his weekly rate of pay?

**$38 x 18.28 ✓ = $694.64 ✓**

1. Calculate Justin’s annual salary, assuming 52 weeks in the year.

**$36 121.28 ✓**

As well as paying the employee, the employer contributes 9% to the employee’s superannuation.

1. Calculate the employer weekly contribution to Justin’s superannuation. Round the answer to the nearest cent.

**$62.517✓ $62.52 (correct rounding) ✓**

Justin’s friend, Matthew, is also a 22 year-old registered plumber. Matthew works as a casual employee. The loading for casual employees is 20% on top of the base rate.

1. What is Matthew’s hourly rate of pay? Round the answer to the nearest cent.

**Loading 20% of $18.28 = $3.656✓ hourly rate $21.94 ✓**

**or 120% of $18.28✓ = $21.94✓**

8.

The individual income tax rates for the 2007-2008 financial year are shown in the following table.

**Tax rates 2007 - 08**

|  |  |
| --- | --- |
| *Taxable income* | *Tax on this income* |
| $1 - $6,000 | Nil |
| $6,001 - $30,000 | 15c for each $1 over $6,000 |
| $30,001- $75,000 | $3,600 plus 30 c for each dollar over $30,000 |
| $75,001- $150,000 | $17,100 plus 40 c for each dollar over $75,000 |
| $150,001and over | $47,100 plus 45 c for each dollar over $150,000 |

Australian Taxation Office

Use the tax table to calculate the amount of tax payable on the following taxable incomes:

1. $25 000

**$0.15 x 19 000 ✓= $2850✓**

1. $37 000

**$3600 + $.30 x $7000✓✓ = $5700✓**

1. $150 000

**$17 100 + $0.40 x 75 000 ✓= $47 100✓ or read from table**