

Places of employment

ACTIVITY 1

GARDENING CENTRE

1 Length of shift

Starting time → 7:00am

Finishing time → 1:00pm

Length of shift: _____

Starting time → 9:15am

Finishing time → 5:15pm

Length of shift: _____

Starting time → 2:30pm

Finishing time → 4:45pm

Length of shift: _____

Starting time → 12:45pm

Finishing time → 6:15pm

Length of shift: _____

Starting time → 8:30am

Finishing time → 4:00pm

Length of shift: _____

Starting time → 1:00pm

Finishing time → 5:45pm

Length of shift: _____

2 Amount of pay

\$15 per hour for 3 hours

Amount of pay: _____

\$18 per hour for 4½ hours

Amount of pay: _____

\$20 per hour for 6 hours

Amount of pay: _____

\$23 per hour for 7½ hours

Amount of pay: _____

\$27 per hour for 8 hours

Amount of pay: _____

\$30 per hour for 1½ hours

Amount of pay: _____

3 Time spent on different things

30 minutes to water
¼ of the plants

Total watering time:

4 hours to deliver orders
to 80% of the customers

Total delivery time:

100 minutes for reviews
of 10 orders to suppliers

Time for 5 reviews:

6 weeks to build a 36m²
expansion onto the
centre

Time to build 12m²

75 minutes to answer
15 online enquires

Time to answer
10 enquires:

2 hours to prepare
3 potted plants

Time to prepare
4 pot plants:

Costs and components

ACTIVITY 6

SELLING A PRODUCT

<p>1 A tub of yoghurt sells for \$4.50</p> <table border="1"><tr><td>making the yoghurt: 30%</td><td></td></tr></table>	making the yoghurt: 30%		<p>2 A baked chicken sells for \$10</p> <table border="1"><tr><td>making the foil-lined bag: $\frac{1}{5}$</td><td></td></tr></table>	making the foil-lined bag: $\frac{1}{5}$	
making the yoghurt: 30%					
making the foil-lined bag: $\frac{1}{5}$					
<p>3 A rabbit hutch sells for \$150</p> <table border="1"><tr><td>building the wooden frame: $\frac{1}{3}$</td><td></td></tr></table>	building the wooden frame: $\frac{1}{3}$		<p>4 A tent sells for \$3080</p> <table border="1"><tr><td>preparing the canvass: 50%</td><td></td></tr></table>	preparing the canvass: 50%	
building the wooden frame: $\frac{1}{3}$					
preparing the canvass: 50%					
<p>5 A car sells for \$32,000</p> <table border="1"><tr><td>constructing the chassis: 19%</td><td></td></tr></table>	constructing the chassis: 19%		<p>6 A swimming pool sells for \$234,000</p> <table border="1"><tr><td>preparing the ground: $\frac{1}{10}$</td><td></td></tr></table>	preparing the ground: $\frac{1}{10}$	
constructing the chassis: 19%					
preparing the ground: $\frac{1}{10}$					
<p>7 A writing pad sells for \$5.60</p> <table border="1"><tr><td>printing the lines on it: $\frac{1}{2}$</td><td></td></tr></table>	printing the lines on it: $\frac{1}{2}$		<p>8 A cement garden pot sells for \$38</p> <table border="1"><tr><td>moulding and painting it: 25%</td><td></td></tr></table>	moulding and painting it: 25%	
printing the lines on it: $\frac{1}{2}$					
moulding and painting it: 25%					
<p>9 A cockatiel aviary sells for \$960</p> <table border="1"><tr><td>welding the metal tubing: 16%</td><td></td></tr></table>	welding the metal tubing: 16%		<p>10 A small greenhouse sells for \$2100</p> <table border="1"><tr><td>constructing the framework: $\frac{1}{4}$</td><td></td></tr></table>	constructing the framework: $\frac{1}{4}$	
welding the metal tubing: 16%					
constructing the framework: $\frac{1}{4}$					
<p>11 A tennis court sells for \$43,000</p> <table border="1"><tr><td>laying and painting it: $\frac{1}{5}$</td><td></td></tr></table>	laying and painting it: $\frac{1}{5}$		<p>12 A mango orchard sells for \$567,000</p> <table border="1"><tr><td>fencing and irrigation: 8%</td><td></td></tr></table>	fencing and irrigation: 8%	
laying and painting it: $\frac{1}{5}$					
fencing and irrigation: 8%					

Sports

ACTIVITY 3

GOLF

<p>1 The 3rd hole on a golf course is a par 5 of 544m and a golfer hit their first shot $\frac{2}{3}$ of the way along this hole.</p> <p>The distance that they still needs to cover to finish it:</p> <p>_____</p>	<p>2 A golfer played a round of 18 holes on Saturday afternoon and he/she made the exact par on $\frac{2}{3}$ of these holes.</p> <p>The amount of holes on which he/she scored this:</p> <p>_____</p>	<p>3 The first golf player took 45 shots to complete 9 holes and the second player took $\frac{1}{3}$ more to complete it.</p> <p>The second player's score for the 9 holes:</p> <p>_____</p>
<p>4 The number of dimples on one type of golf ball is 360 and another one has 5% less on it</p> <p>The number of dimples on the other golf ball:</p> <p>_____</p>	<p>5 The weight of a golf ball is roughly 45.9gm and a social player has 20 golf balls in his/her buggy.</p> <p>The total weight of the golf balls in his/her buggy:</p> <p>_____</p>	<p>6 A group of 8 golfers made these scores for a round of 18 holes (90/93/97/100/102/105/110/113)</p> <p>The average score for this group of 8 golfers:</p> <p>_____</p>
<p>7 A set of golf clubs at a sports store cost \$400 in March but their price increased by 31% in May</p> <p>The price of the set of golf clubs in May:</p> <p>_____</p>	<p>8 A box of a dozen golf balls at a sports store cost \$72 and a box of nine golf balls cost \$63</p> <p>The difference in their individual prices:</p> <p>_____</p>	<p>9 A golf putter at a sports store cost \$210 in June but its price decreased by 20% at the end of August</p> <p>The price of the putter at the end of August:</p> <p>_____</p>
<p>10 A local golf club had 600 members in 1998. It doubled by 2003 but it lost a quarter of them by 2008.</p> <p>The number of members in the club by 2008:</p> <p>_____</p>	<p>11 A golf player from New Zealand won a major tournament 7 times over a period of 20 years</p> <p>This winning rate expressed as a percentage:</p> <p>_____</p>	<p>12 An American golf player earned this yearly amount for 3 years in a row (\$2.09mil/\$2.18mil/\$2.27mil)</p> <p>The amount that he earned in the 4th year:</p> <p>_____</p>

The entertainment world

ACTIVITY 7

CONCERTS

<p>1 A pianist played a series of 24 concerts and each concert averaged a taking of \$96,000</p> <p>He/she was paid about 20% of the total takings:</p> <p>_____</p>	<p>2 A team of stage hands took 2 days to prepare a stage for a concert by a singer</p> <p>Numbers of hours for a third of their preparation time:</p> <p>_____</p>	<p>3 An orchestra sold 21,000 tickets from 8:00am to 3:00pm to their concert</p> <p>Estimation of the number of tickets sold after 4 hours:</p> <p>_____</p>
<p>4 A concert hall had a floor space of $1,750\text{m}^2$ and it was increased by %</p> <p>The size of the floor space after the increase:</p> <p>_____</p>	<p>5 A rock band played 3 concerts in March ($2\frac{1}{2}$ hrs/3hrs/$3\frac{1}{2}$hrs)</p> <p>Average length of each concert played by the band:</p> <p>_____</p>	<p>6 A group of 4 friends paid \$290 for tickets to a concert (\$56/\$67/___/\$89)</p> <p>Price of the ticket paid by the third friend:</p> <p>_____</p>
<p>7 A quarter of the time for technical upgrades to a concert arena was $12\frac{1}{2}$ hrs</p> <p>Total amount of hours spent on the upgrades:</p> <p>_____</p>	<p>8 A single concert performed by a guitarist made a profit of \$98,000 for him/her in April</p> <p>His/her concert in May made an extra profit of 17%:</p> <p>_____</p>	<p>9 A tv concert by a dance company was watched by 1.2 million people in 2019</p> <p>It was repeated in 2020 and less people watched it by $\frac{3}{20}$:</p> <p>_____</p>
<p>10 A concert's preparation time took 8 weeks for two thirds of it to be prepared</p> <p>Number of weeks that it took to be fully prepared:</p> <p>_____</p>	<p>11 A pair of music lovers bought tickets to a classical concert (\$98.50 and \$86.25)</p> <p>Price difference between the two tickets:</p> <p>_____</p>	<p>12 A stadium for international concert tours had seating for 35,000 people</p> <p>This amount of seating was reduced by $\frac{2}{7}$:</p> <p>_____</p>

Themed applications

ACTIVITY 2

POST OFFICE

<p>1 There were 240 post office boxes</p> <table border="1"><tbody><tr><td>This amount was increased by 10%</td><td></td></tr><tr><td>This amount was decreased by 5%</td><td></td></tr></tbody></table>	This amount was increased by 10%		This amount was decreased by 5%		<p>2 A cylindrical postage container cost \$3.60</p> <table border="1"><tbody><tr><td>This price was increased by $\frac{1}{4}$</td><td></td></tr><tr><td>This price was decreased by $\frac{1}{8}$</td><td></td></tr></tbody></table>	This price was increased by $\frac{1}{4}$		This price was decreased by $\frac{1}{8}$	
This amount was increased by 10%									
This amount was decreased by 5%									
This price was increased by $\frac{1}{4}$									
This price was decreased by $\frac{1}{8}$									
<p>3 A small packet of stamps held 12 stamps</p> <table border="1"><tbody><tr><td>A medium sized packet held $\frac{1}{3}$ more</td><td></td></tr><tr><td>A large packet held $\frac{1}{2}$ more</td><td></td></tr></tbody></table>	A medium sized packet held $\frac{1}{3}$ more		A large packet held $\frac{1}{2}$ more		<p>4 There were 128 customers from 9am to 5pm</p> <table border="1"><tbody><tr><td>Approx. number of customers in 7 hours</td><td></td></tr><tr><td>Approx. number of customers in 4 hours</td><td></td></tr></tbody></table>	Approx. number of customers in 7 hours		Approx. number of customers in 4 hours	
A medium sized packet held $\frac{1}{3}$ more									
A large packet held $\frac{1}{2}$ more									
Approx. number of customers in 7 hours									
Approx. number of customers in 4 hours									
<p>5 A counter officer was paid \$24 per hour</p> <table border="1"><tbody><tr><td>Pay received for a $3\frac{1}{2}$ hour shift</td><td></td></tr><tr><td>Pay received for an $8\frac{1}{2}$ hour shift</td><td></td></tr></tbody></table>	Pay received for a $3\frac{1}{2}$ hour shift		Pay received for an $8\frac{1}{2}$ hour shift		<p>6 A small airmail package to Austria cost \$16</p> <table border="1"><tbody><tr><td>A medium sized airmail package to Austria (add 25%)</td><td></td></tr><tr><td>A large airmail package to Austria (add 50%)</td><td></td></tr></tbody></table>	A medium sized airmail package to Austria (add 25%)		A large airmail package to Austria (add 50%)	
Pay received for a $3\frac{1}{2}$ hour shift									
Pay received for an $8\frac{1}{2}$ hour shift									
A medium sized airmail package to Austria (add 25%)									
A large airmail package to Austria (add 50%)									

Converting and comparing units of measurement

ACTIVITY 5

TEMPERATURE (CENTIGRADE AND FAHRENHEIT)

1 $^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32$

$-20^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

$-17^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

$-12^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

$-7^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

$0^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

$9^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

$24^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

$35^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

$40^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

2 $^{\circ}\text{C} = (^{\circ}\text{F} - 32) \div 1.8$

$-50^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

$-41^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

$-28^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

$-8^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

$0^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

$6^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

$11^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

$22^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

$30^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

Miscellaneous Things 1

ACTIVITY 5

BURNING CANDLES

1



This candle is burning at a rate of 1cm per hour. After 3 hours its height will be:

10cm height

___ cm

2



This candle is burning at a rate of 8cm per hour. After 5 hours its height will be:

50cm height

___ cm

3



This candle is burning at a rate of 5cm per hour. After 4 hours its height will be:

35cm height

___ cm

4



This candle stopped burning after 7 hours. It was burning at a rate of:

14cm height

___ cm per hour

5



This candle stopped burning after 6 hours. It was burning at a rate of:

6cm height

___ cm per hour

6



This candle stopped burning after 8 hours. It was burning at a rate of:

40cm height

___ cm per hour

7



This candle is burning at a rate of 2cm per hour. After ___ hours its height will be 18cm.

20cm height

8



This candle is burning at a rate of 9cm per hour. After ___ hours its height will be 36cm.

63cm height

9



This candle is burning at a rate of 6cm per hour. After ___ hours its height will be 8cm.

20cm height

Miscellaneous Things 2

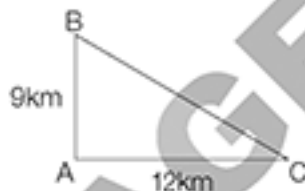
ACTIVITY 6

FAMILY

- 1** A middle boy of three siblings weighs 30kg

His younger brother weighs $\frac{1}{5}$ less	
His older sister weighs 10% more	

- 2** Three cousins live in a triangular pattern from each other on a map



Distance between Cousin B and Cousin C	
--	--

- 3** A family of 2 parents and 2 children bought one-way plane tickets for \$4800

Average price for the one-way plane tickets	
Total price for the return plane tickets	

- 4** A girl has dark brown hair 44cm in length

Her mother's hair is $\frac{1}{5}$ longer

Her aunty's hair is 25% shorter

- 5** 200 family members lived in New South Wales

$\frac{1}{4}$ of them moved to Western Australia	
37% of them moved to South Australia	

- 6** A grandfather is 81 years old in 2020

His age in 2015

His age in 1977
