## m MEGA LECTURE

## Conversion - Percentages, Fractions \& Decimals

## Question Paper 1



Grade Boundaries:

| A* | A | B | C | D | E | U |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $>85 \%$ | $75 \%$ | $60 \%$ | $45 \%$ | $35 \%$ | $25 \%$ | $<25 \%$ |

1 Write the recurring decimal 0.32 as a fraction.
[ 0.32 means $0.3222 \ldots$ ]

2 Write the recurring decimal $0 . \dot{4}$ as a fraction.
[0.4 means $0.444 \ldots$...]

3 Write the recurring decimal $0.2 \dot{5}$ as a fraction.
[0.2ذं means 0.2555 ...]

4 Write the recurring decimal 0.15 as a fraction.
[0.15 means 0.1555 ...]

5 Jason receives some money for his birthday.
He spends $\frac{11}{15}$ of the money and has $\$ 14.40$ left.
Calculate how much money he received for his birthday.



6 A film company uses 512 actors in a film.
The actors are in the ratio men : women : children $=7: 11: 14$.
(a) (i) Show that there are 224 children in the film.
Answer(a)(i)
(ii) Find the number of men in the film.

> Answer(a)(ii)
(b) Every working day, each child is given $\$ 1$ to spend.

Each child works for 45 days.
Calculate the total amount that the film company gives the children to spend.
Give your answer correct to the nearest $\$ 100$.

> Answer(b) \$.
(c) The children have lessons every day in groups of no more than 12 .

Calculate the smallest possible number of groups.
Answer(c)
(d) The film costs four million and ninety three thousand dollars to make.
(i) Write this number in figures.
Answer(d)(i)
(ii) Write your answer to part (d)(i) in standard form.
Answer(d)(ii)
(e) A DVD copy of the film costs $\$ 2.75$ to make.

The selling price is $\$ 8.20$.
Calculate the percentage profit.

7 There are three different areas, $\mathrm{A}, \mathrm{B}$ and C , for seating in a theatre.
The numbers of seats in each area are in the ratio $\mathrm{A}: \mathrm{B}: \mathrm{C}=11: 8: 7$.
There are 920 seats in area B.
(a) (i) Show that there are 805 seats in area C.

Answer(a)(i)
(ii) Write the number of seats in area B as a percentage of the total number $\mathrm{C} f$ seats.

(b) The cost of a ticket for a seat in each area of the theatre isshewn in the table.


For a concert $80 \%$ of area B tickets were sold and $\frac{3}{5}$ of area C tickets were sold.
The total amount of money taken from ticket sales was $\$ 35834$.
Calculate the number of area A tickets that were sold.
(c) The total ticket sales of $\$ 35834$ was $5 \%$ less than the ticket sales at the previous concert. Calculate the ticket sales at the previous concert.

8 At the beginning of July, Kim had a mass of 63 kg . At the end of July, his mass was 61 kg .

Calculate the percentage loss in Kim's mass.

9 In July, a supermarket sold 45981 bottles of fruit juice.
(a) The cost of a bottle of fruit juice was $\$ 1.35$.

Calculate the amount received from the sale of the 45981 bottles.
Give your answer correct to the nearest hundred dollars.
Answer(a) \$
(b) The number of bottles sold in July was $17 \%$ more than the number sold in January.

Calculate the number of bottles sold in January.

[3]
(c) There were 3 different flavours of fruit juice.

The number of bottles sold in each flavour was in the ratio apple: orange: cherry $=3: 4: 2$.
The total number of bottles sold was 45981.
Calculate the number of bottles of orangeinice sold.
(d) One bottle contands 1.5 litres of fruit juice.

Calculate the number of 330 ml glasses that can be filled completely from one bottle.

> Answer(d)
(e) $\frac{5}{9}$ of the 45981 bottles are recycled.

Calculate the number of bottles that are recycled.

10 Work out 72 cents as a percentage of 83 cents.

