

INDIGO A

1)  $4\frac{3}{5} + \frac{3}{7}$

Write your answer as an improper fraction.

2) Evaluate  $2\frac{1}{2} \div 1\frac{2}{3}$

- 3) A stone is thrown downwards off a cliff with an initial speed (u) of 3m/s and takes a time (t) of 2 seconds to hit the beach.

Use the formula below to work out the height of the cliff.

$$\text{Height} = ut + 4.9t^2$$

- 4) Wayne said "7% is bigger than 0.1". With reasons, explain whether Wayne is correct.
- 5) If 4 units of electricity are needed for 2 heaters for 72 hours how many hours will 8 units of electricity supply 48 heaters?
- 6) A large company has 1272 employees working in their offices. Each office has 24 employees. How many offices are there?
- 7) *You may use a calculator for this question.*

Given that €1 = £0.82 and £1 = \$1.54, convert \$78.43 into €.

- 8) Mrs James needs to organise a coach for a school trip to Magna for 200 year 7 pupils.  
Each coach can fit 72 pupils. A coach costs a base rate of £80 per coach and then £2 for each mile travelled.  
It is 17 miles to Magna from school (They need to return to school at the end of the day).

How much will Mrs James have to charge each pupil for the coach?