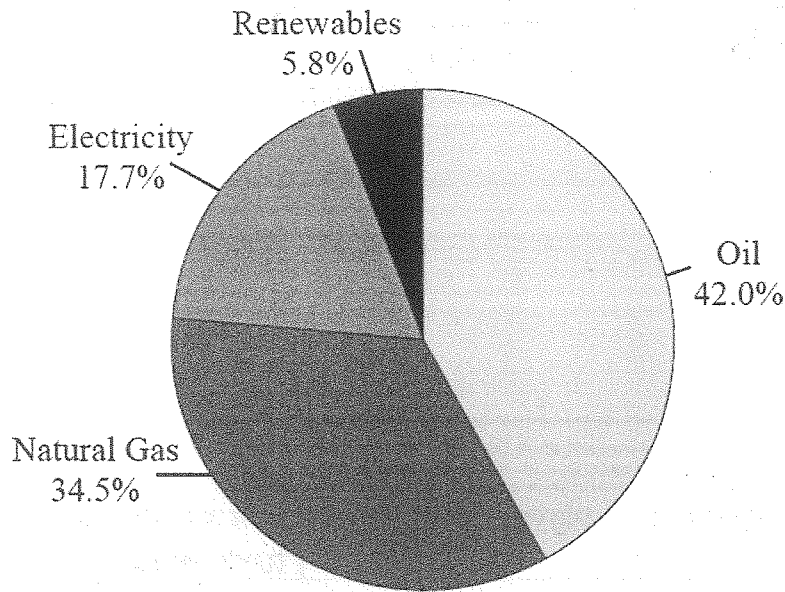4   This pie chart shows energy use by type of fuel.

(a) Which type of fuel is used most?

biggest slice

Answer ___Oil___ [1]

(b) **Measure** the angle for electricity.

Answer ___63___° [1]

(c) Sean thinks about $\frac{3}{4}$ of energy use comes from oil and natural gas.

Explain why Sean is correct.

Answer ___Oil 42·0% + Gas 34·5% = 76·5%___

___Yes Sean is correct because 76·5% ≈ 75% ≈ $\frac{3}{4}$___ [1]

≈ approximately

(d) Complete the statement below with a suitable number in the box.

The fraction $\frac{renewables}{electricity}$ is about $\frac{1}{\boxed{3}}$. [1]

$$\frac{5·8}{17·7} \approx \frac{6}{18} \approx \frac{1}{3}$$

18 Calculate

$$\frac{\sqrt{1.1 \times 4.4}}{(3.2 - 2.65)}$$

$$\frac{\sqrt{4.84}}{0.55} = \frac{2.2}{0.55} = 4$$

Answer _____ [2]

27 Each player in a group of 15 players scored either 2 or x goals.

How many?

Number of goals	Frequency	
2	10	2,2,2,2,2,2,2,2,2,2
x	5	x,x,x,x,x

The mean number of goals per player was 3

Calculate x.

Mean = adding up ÷ how many

$$3 = \frac{2+2+2+2+2+2+2+2+2+2+x+x+x+x+x}{15}$$

$$3 = \frac{20 + 5x}{15}$$

Answer $x = $ _____5_____ [3]

$$45 = 20 + 5x$$
$$-20 \qquad -20$$
$$25 = 5x$$
$$\div 5 \qquad \div 5$$
$$5 = x$$