

Name: _____

Class/Set: _____

FY Starter 06/02

Malvern College

1: Write as a normal number:

$$6 \times 10^6 = \underline{\hspace{2cm}}$$

2: Write the following in standard form:

$$6.3 = \underline{\hspace{2cm}}$$

3: Calculate the following, giving your answer in standard form:

$$8 \times 10^1 \times 7 \times 10^{-6}$$

4: Calculate the following, giving your answer in standard form:

$$6.3 \times 10^2 \div 7 \times 10^1$$

5: Simplify the following:

$$v \times v = \underline{\hspace{2cm}}$$

6: Simplify the following:

$$r \times r^3 = \underline{\hspace{2cm}}$$

7: Simplify the following:

$$j^9 \div j^8 = \underline{\hspace{2cm}}$$

8: Simplify the following:

$$(t^2)^{10} = \underline{\hspace{2cm}}$$

9: Simplify the following:

$$3m^5 \times 4m^4 = \underline{\hspace{2cm}}$$

10: Simplify the following:

$$\frac{15e^5}{5e^4} = \underline{\hspace{2cm}}$$

11: Simplify the following:

$$(3y^8)^3 = \underline{\hspace{2cm}}$$

12: Round to the required accuracy:

$$9795.58 \text{ to 3 s.f.} = \underline{\hspace{2cm}}$$

13: Round to the required accuracy:

$$9880.34958014 \text{ to 4 d.p.} = \underline{\hspace{2cm}}$$

14: Work out the following:

Increase 735 km by 9.1%

15: Work out the following:

Decrease 58500 m³ by 26%

16: Find the percentage increase or decrease from the first value to the second value:

760 m, 1276.8 m

17: Find the percentage increase or decrease from the first value to the second value:

240 cm³, 194.4 cm³

18: Calculate the following to the nearest £0.01.

The value after 4 years of £56,100.00 invested at 1.5% p/a compound interest.

19: Calculate the following to the nearest £0.01.

The value after 2 years of £2,640.00 reduced by 11% p/a.

20: Work out the following:

If an elephant is reduced by 73% in a sale to £135.00, find the original price.

Answers: FY Starter 06/02

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1: 6000000

2: 6.3×10^0

3: 5.6×10^{-4}

4: 9×10^0

5: v^2

6: r^4

7: j

8: t^{20}

9: $12m^9$

10: $3e$

11: $27y^{24}$

12: 9800

13: 9880.3496

14: 801.885 km

15: 43290 m^3

16: 68% increase

17: 19% decrease

18: £59,542.50

19: £2,091.14

20: £500.00