**RED - Using a multiplier to find percentage increase or decrease**

L.O: TBAT increase and decrease an amount by a percentage using a single multiplier

1) Increase 435 by 70%

100% + 70% =170%

170

= 1 . 70

100

435 x 1.7 =………………………………….

2) Increase 23 by 16%

100% + 16% =116%

116

= 1 . 16

100

3) Increase 17 by 1%

100% + 1% =101%

4) Decrease 67 by 15%

100% - 15% =

5) Decrease 78 by 9%

6) Jim bought a house for £210, 000. In one year, the value of the house had increased by 15.4%. How much does the house cost now?

7) a) Alex purchased a car for the value of £1200. Each year the value of the car decreases by 17%. How much is the car worth now after a year?

b) How much was Alex’s car worth after 3 years?

Extension: If a boat cost £350, 000 and its value increased to £420,000, by what percentage has the value increased?

**AMBER - Using a multiplier to find percentage increase or decrease**

L.O: TBAT increase and decrease an amount by a percentage using a single multiplier

1) Increase 435 by 70%

100% + 70% =170%

170

= 1 . 70

100

2) Increase 23 by 16%

100% + 16% =116%

3) Increase 17 by 1%

100% + 1% =

4) Decrease 67 by 15%

100% - 15% =

5) Decrease 78 by 9%

6) Jim bought a house for £210, 000. In one year, the value of the house had increased by 15.4%. How much does the house cost now?

7) a) Alex purchased a car for the value of £1200. Each year the value of the car decreases by 17%. How much is the car worth now after a year?

b) How much was Alex’s car worth after 3 years?

Extension: If a boat cost £350, 000 and its value increased to £420,000, by what percentage has the value increased?

**GREEN - Using a multiplier to find percentage increase or decrease**

L.O: TBAT increase and decrease an amount by a percentage using a single multiplier

1) Increase 435 by 70%

2) Increase 23 by 16%

3) Increase 17 by 1%

4) Decrease 67 by 15%

5) Decrease 78 by 9%

6) Jim bought a house for £210, 000. In one year, the value of the house had increased by 15.4%. How much does the house cost now?

7) a) Alex purchased a car for the value of £1200. Each year the value of the car decreases by 17%. How much is the car worth now after a year?

b) How much was Alex’s car worth after 3 years?

Extension: If a boat cost £350, 000 and its value increased to £420,000, by what percentage has the value increased?

**Answers**

1) Increase 435 by 70% **= 739.5**

2) Increase 23 by 16% **= 26.68**

3) Increase 17 by 1% **= 17.17**

4) Decrease 67 by 15% **= 56.95**

5) Decrease 78 by 9% **= 70.98**

6) Jim bought a house for £210, 000. In one year, the value of the house had increased by 15.4%. How much does the house cost now?

**£242,340**

7) a) Alex purchased a car for the value of £1200. Each year the value of the car decreases by 17%. How much is the car worth now after a year? **£996**

b) How much was Alex’s car worth after 3 years?

**£686.14**

Extension: If a boat cost £350, 000 and its value increased to £420,000, by what percentage has the value increased?

**20%**