

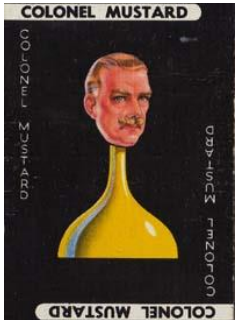
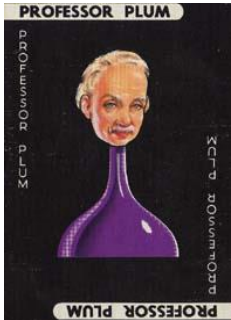
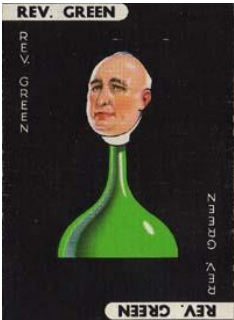
Chuedo?

*Fractions, decimals
and percentages*

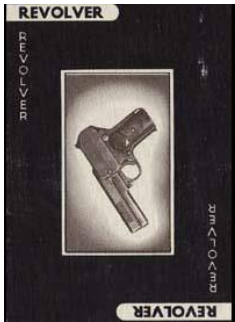
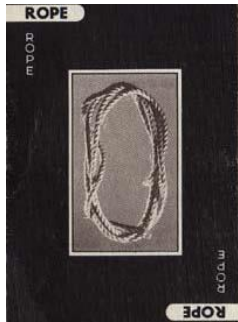
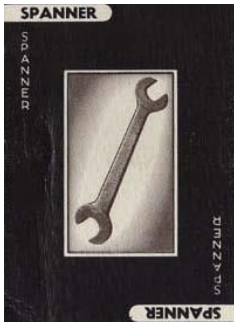
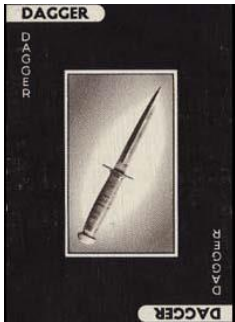


Name _____

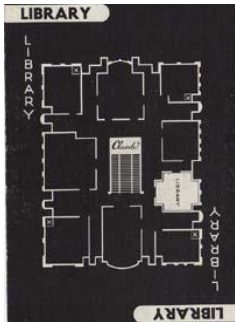
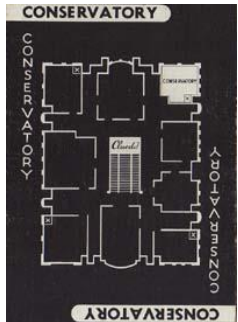
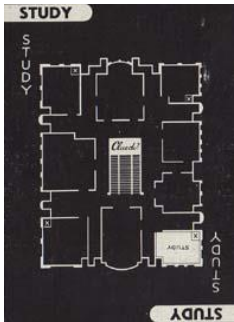
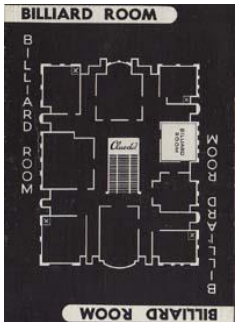
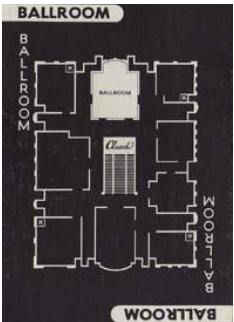
Suspects



Weapons



Rooms



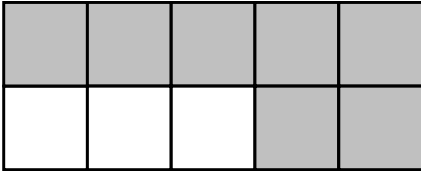


1. Percentage of shapes

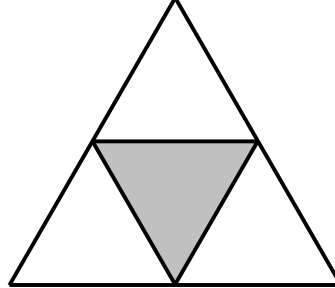


For each shape, work out the percentage that has been shaded.

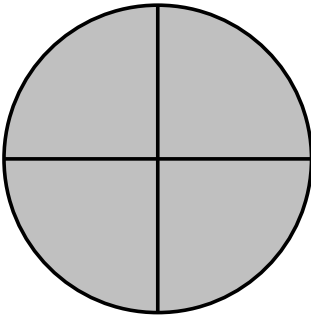
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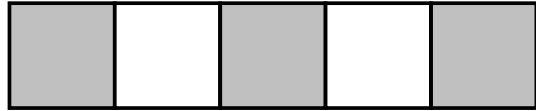
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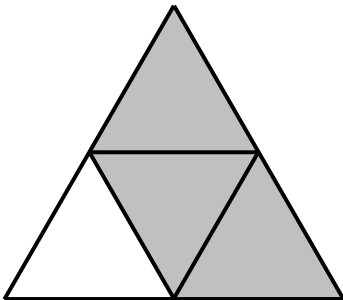
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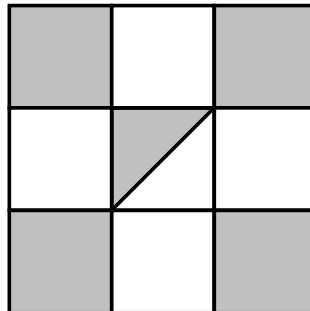
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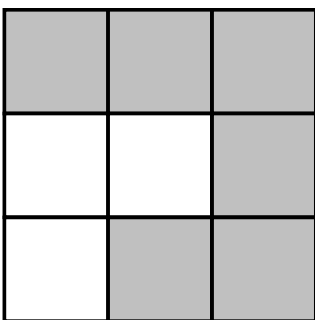
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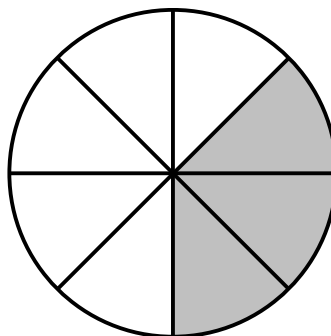
6.



7.



8.





2. Simplifying fractions



Write as fractions in their simplest form

1 $\frac{8}{20}$

2 $\frac{6}{9}$

3 $\frac{12}{16}$

4 $\frac{8}{40}$

5 $\frac{25}{35}$

6 $\frac{88}{99}$

7 $\frac{12}{30}$

8 $\frac{400}{500}$

9 $\frac{14}{16}$

10 $\frac{216}{360}$



3. Fraction of an amount



Evaluate:

1 $\frac{3}{4}$ of 60

2 $\frac{2}{5}$ of 40

3 $\frac{7}{10}$ of 5000

4 $\frac{2}{3}$ of 18

5 $\frac{5}{7}$ of 42

6 $\frac{20}{40}$ of 120

7 $\frac{5}{6}$ of 90

8 $\frac{3}{4}$ of 18

9 $\frac{4}{5}$ of 12

10 $\frac{2}{3}$ of 7



4. Improper fractions & mixed numbers



Change these improper fractions into mixed numbers

1 $\frac{8}{3}$

2 $\frac{15}{2}$

3 $\frac{21}{5}$

4 $\frac{21}{4}$

5 $\frac{29}{6}$

Change these mixed numbers into improper fractions

6 $1\frac{3}{4}$

7 $4\frac{1}{2}$

8 $2\frac{4}{9}$

9 $3\frac{6}{7}$

10 $5\frac{7}{8}$



5. Multiplying and dividing fractions



Leave your answers as simplified fractions

1 $\frac{2}{5} \times \frac{3}{4}$

2 $\frac{3}{5} \div \frac{9}{10}$

3 $\frac{3}{7} \times \frac{14}{15}$

4 $\frac{8}{7} \div \frac{6}{5}$

5 $\frac{9}{5} \times \frac{5}{3}$

6 $2\frac{1}{5} \div \frac{5}{9}$

7 $1\frac{1}{2} \times \frac{3}{8}$

8 $2\frac{2}{3} \div 1\frac{3}{4}$

9 $2\frac{1}{3} \times 1\frac{2}{5}$

10 $4\frac{2}{7} \div 2$



6. Adding and subtracting fractions

Leave your answers as simplified fractions

1 $\frac{2}{5} + \frac{3}{5}$

2 $\frac{1}{2} - \frac{5}{12}$

3 $\frac{3}{4} + \frac{1}{6}$

4 $\frac{7}{12} - \frac{3}{8}$

5 $\frac{3}{4} - \frac{2}{3}$

6 $1\frac{3}{5} + \frac{4}{7}$

7 $5\frac{8}{15} + 4\frac{2}{3}$

8 $4\frac{3}{10} - 2\frac{4}{5}$

9 $2\frac{2}{9} - 1\frac{5}{6}$

10 $2\frac{5}{8} + 4\frac{1}{6}$



7. Percentages to fractions



Change these percentages to simplified fractions.

1. 40%

2. 5%

3. 75%

4. 6%

5. 16%

6. 2%

7. 92%

8. $66.\dot{6}$ %

9. 0.1%

10. 200%



8. Fractions to percentages



Change these fractions to percentages.

1 $\frac{2}{8}$

2 $\frac{3}{10}$

3 $\frac{15}{20}$

4 $\frac{23}{25}$

5 $\frac{1}{3}$

6 $\frac{9}{12}$

7 $\frac{11}{25}$

8 $\frac{7}{8}$

9 $\frac{26}{40}$

10 $\frac{3}{15}$



9. Percentage of an amount



Work out:

- 1. 10% of 3500**
- 2. 15% of 240**
- 3. 5% of 60**
- 4. 25% of 2000**
- 5. 1% of 12500**
- 6. 30% of 600**
- 7. 65% of 80**
- 8. 7% of 40**
- 9. 95% of 150**
- 10. 81% of 450**



10. One amount as a % of another

Express the first quantity as a percentage of the second.

1. Getting 16 out of 20 in a test

2. Receiving 200 out of 500 votes

3. Spending £600 of your £2000 monthly salary on rent

4. Scoring 15 goals of your team's 40 goal total

5. 20g of fat in a 60g chocolate bar

6. 50GB of a computer's 80GB hard-drive used to store photos

7. Spending 45 minutes doing maths homework, out of 1 hour total time spent doing homework

8. A 60cm tail on a 1.5m lizard

9. 60p of your £3 tube fare used to fund engineering works

10. 180 million out of 300 million Americans without a passport



11. Making a percentage change

- 1. Increase £2000 by 10%**
- 2. Decrease £3000 by 30%**
- 3. Increase £50 by 5%**
- 4. Decrease £15 by 80%**
- 5. Decrease £300 by 4%**
- 6. Increase £600 by 15%**
- 7. Increase £9 by 20%**
- 8. Increase £10 by 200%**
- 9. Decrease £50 by 11%**
- 10. Decrease £4 by 95%**



12. Describing a percentage change

Work out the change as a percentage

- 1. A train fare increased from £20 to £25**
- 2. A sale item down from £40 to £28**
- 3. A population increasing from 5 million to 6 million**
- 4. A house value increasing from £200,000 to £230,000**
- 5. A car's value dropping from £2000 to £500**
- 6. An investment's value decreasing from £4000 to £2400**
- 7. A plant growing from 12cm to 16cm**
- 8. Tuition fees increasing from £3000 to £9000**
- 9. A boxer's weight dropping from 80kg to 76kg to make a weigh-in**
- 10. Some shares decreasing in value by 20p to £1.80**