

1. A U.K. Member of Parliament was selected at random in 2010.

The probability of selecting a woman was $\frac{143}{650}$

Work out the probability a man was selected.

Source www.ukpolitical.info

1.

2. Five students each throw a biased coin a number of times.

The table shows the total number of throws, the number of heads and the number of tails each student got.

	heads	tails	total
Ines	6	4	10
Jake	15	15	30
Keira	26	14	40
Lenny	57	43	100
Maisie	177	143	320

The coin will be thrown one more time.

- (a) Which of the students' results will give the best estimate for the probability that the coin will land on heads?

Justify your answer.

.....

- (b) Use all the results to work out a better estimate for the probability that the coin will land heads.

(b)

3. (a) Work out $\frac{2}{5} \times \frac{3}{4}$

Give your answer in its simplest form.

(a)

4. (a) Work out $\frac{5}{6} \div \frac{7}{12}$

Give your fraction in its simplest form.

(a)

5. Solve $6x + 3 = 27$

$x =$

6. Solve $4d + 1 = 13$

$d =$

7. Solve $7x + 1 = x + 13$

$x =$

8. Expand $3(k + 5)$

8.

9. Expand $n(n + 4)$

9.

10. Expand and simplify $(x - 4)(x + 5)$

10.

11. Expand and simplify $(y - 3)(y - 2)$

11.

Stuck? try these first

12. (a) Work out $\frac{1}{2} \times \frac{3}{5}$

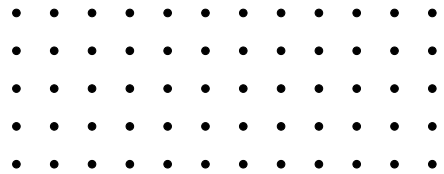
(a)

13. (a) Work out $\frac{2}{7} \div \frac{5}{6}$

(a)

14. Complete $\frac{1}{3} = \frac{\quad}{6}$

You may use this dotted paper to draw fractions



15. Write $\frac{10}{12}$ in its simplest form.

15.

16. Write $\frac{35}{45}$ in its simplest form.

16.

17. Write $\frac{75}{125}$ in its simplest form.

17.

18. Solve $f - 11 = 43$

$f =$

19. Solve $w + 9 = 46$

$w = \dots\dots\dots$

20. Solve $4y = 12$

$y = \dots\dots\dots$

21. Solve $\frac{p}{8} = 4$

$p = \dots\dots\dots$

22. (a) Simplify $x + x + x + x$

(a) $\dots\dots\dots$

23. (a) Simplify $9y - 3y$

(a) $\dots\dots\dots$

24. (a) Simplify $2y - 3y$

(a) $\dots\dots\dots$

25. (a) Simplify $5x - 3y - 8x + 7y$

(a) $\dots\dots\dots$

26. (a) Simplify $2 \times 2n$

(a) $\dots\dots\dots$

27. (a) Simplify $2x \times y$

(a) $\dots\dots\dots$

28. (a) Simplify $2m \times 2n$

(a) $\dots\dots\dots$