

## KEY FACTS

- Mitosis produces 2 genetically IDENTICAL diploid daughter cells
- Used for: growth, repair/replacement of cells, asexual reproduction
- Before mitosis: DNA replicates (each chromosome is copied)
- Stages: chromosomes condense → line up at equator → pulled to poles → cell divides
- Cancer: mutations in cell cycle control genes → uncontrolled division → tumour
- Benign tumour: stays localised. Malignant: invades tissue, can metastasise

## KEY TERMS

<b>Mitosis</b>	Cell division → 2 identical diploid daughter cells
<b>Diploid</b>	Having 2 sets of chromosomes (46 in humans)
<b>Cancer</b>	Uncontrolled cell division due to mutations in cell cycle genes
<b>Metastasis</b>	Spread of cancer cells via blood to form secondary tumours

■ EXAM TIP: MITOSIS = 2 cells, IDENTICAL. MEIOSIS = 4 cells, DIFFERENT. Never say mitosis produces 4 cells.