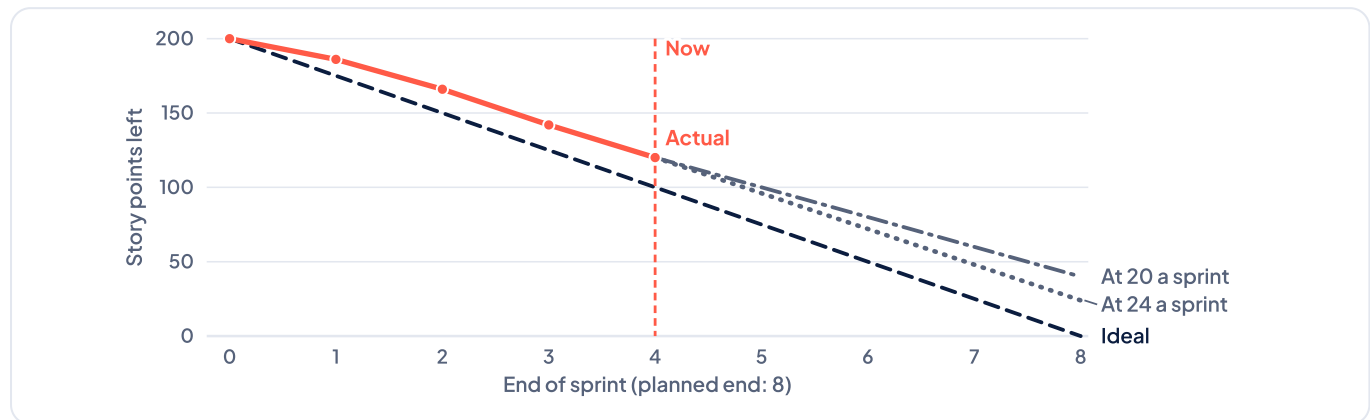


Burn charts and velocity

Forecast, as a range, when a team will finish, and see whether a gap comes from its pace or from added scope.



Illustrative: 200 points in 8 sprints. After 4: 120 left (ideal 100). At the planned end, 24 to 40 are left: 1 to 2 more sprints.

WHAT IT IS

Velocity is the story points of accepted work one team finishes in a sprint; a story point is a relative size the team agrees. A **burndown** plots the work left against an **ideal line** from the total to zero: above it is behind. A **burnup** plots the work done and the total scope, so added scope shows as a step. The Scrum Guide (2020) names both charts.

HOW IT WORKS

- 01 Ideal line: total ÷ planned sprints, each sprint.
- 02 Each sprint, plot the work left, or done and scope.
- 03 Velocity: recent accepted points, slowest to fastest.
- 04 Forecast: work left ÷ velocity, rounded up.
- 05 Pace to hold the date: work left ÷ sprints left.

MID-LEVEL · WORKED EXAMPLE

Apply it well

The situation: A city team has eight months to move resident parking permits online. A supplier builds the resident screens: 96 points in 6 two-week sprints.

After 3 sprints of 12, 16 and 14 points, 54 are left (ideal: 48). The 3 sprints left fit 36 to 48 points (3×12 to 3×16), so the project manager and the product owner move 18 low-value points to after go-live.

In the exam: Say ahead or behind and why; give the velocity, its range and your options. Velocity is never a target.

SENIOR · WORKED EXAMPLE

Design and lead it

The situation: A city is joining 14 online services under one login over 30 months. Several teams build them in sprints, and a board releases funding at each gate.

The project manager never adds up or compares points across teams. Before each gate, she turns each team's burnup into a date range per service, so the board sees what is at risk.

In the exam: Show how team charts become board decisions: ranges with their confidence, the scope at risk, who may move it.

WHERE IT SITS

IPMA · ICB4	PMI · PMBOK® GUIDE 8 · PMP® EXAM	APM · BOK 8 · PMQ EXAM
4.5.4: iterative planning in time boxes (p. 112); 4.5.7: velocity analysis for forecasting (p. 124)	Guide: story points p. 146; burndown p. 175; velocity, burn charts pp. 211–213. Exam outline: Process tasks 8, 9	BoK (APM's Body of Knowledge) §5.5.4: burndown tracks completion; §5.5.1 timeboxes. PMQ (APM's Project Management Qualification) 20c, 21c

Sources: PMI, PMBOK® Guide, 8th ed.; APM Body of Knowledge, 8th ed.; IPMA ICB4 (2015); Schwaber & Sutherland, The 2020 Scrum Guide™; PMI, PMP® Examination Content Outline (2026); APM, PMQ handbook (v6, 2026)

Key: IPMA = International Project Management Association; ICB4 = IPMA's Individual Competence Baseline (4.5.4 etc.: its competence elements); PMI = Project Management Institute; PMBOK® Guide = PMI's body-of-knowledge guide; PMP® = PMI's Project Management Professional; APM = Association for Project Management. Unofficial study material for IPMA®, PMI® and APM exams. Not affiliated with, endorsed by or approved by IPMA, PMI or APM, and not an accredited or endorsed training provider. IPMA® and IPMA ICB® are registered trademarks of IPMA in Switzerland and other countries. PMI, PMP, CAPM and PMBOK are registered marks of Project Management Institute, Inc. APM is a trade mark of the Association for Project Management. Other marks belong to their owners. PMP® exam facts are from PMI's public PMP® Examination Content Outline (2026); check the current version on [pmi.org](https://www.pmi.org). APM's qualifications are its own; this series is not an APM Accredited Provider or APM Endorsed. Examples use a fictional city and its projects. Levels (this series' labels): Mid-level = moderately complex projects (IPMA Level C, PMI's PMP®); Senior = complex projects and people (IPMA Level B, APM's Chartered Project Professional).

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