

Soccer Pace & Distance

Use distance = rate × time with made-up soccer players. Watch the units — meters, seconds, kilometers, and minutes. Show every step!

Name _____

Date _____

PACE TOOLKIT

$$d = r \times t$$

 distance =
rate × time

$$r = d \div t$$

 rate (speed)
= dist ÷ time

$$t = d \div r$$

 time =
dist ÷ rate

Units

 keep m & s
(or convert)


DISTANCE · RATE · TIME

ROOKIE

- 1 **Nia Cruz** sprints at **6** meters per second for **40** seconds. How many meters does she run?

WORK SPACE

_____ m

ROOKIE

- 2 **Ben Holt** covers **300** meters in **60** seconds. What is his speed in meters per second (m/s)?

WORK SPACE

_____ m/s

STARTER

- 3 How many seconds does it take to run **400** meters at **5** m/s?

WORK SPACE

_____ s

STARTER

- 4 **Asha Kim** runs at **8.5** m/s for **20** seconds. How many meters does she run?

WORK SPACE

_____ m

PRO

- 5 A midfielder jogs **9.6** km in **40** minutes. What is the pace in **m/s**? (Hint: 1 km = 1000 m, and 40 minutes = 2400 seconds.)

WORK SPACE

_____ m/s

PRO

- 6 A striker runs **100** meters at **12.5** m/s. How many seconds does the sprint take?

WORK SPACE

_____ s

ALL-STAR

- 7 **Rio** runs at **7** m/s for **30** seconds. **Zoe** runs at **6** m/s for **35** seconds. Who covers more distance, or is it a tie?

WORK SPACE

CHALLENGE ★

- 8 A winger covers **4.5** km in **15** minutes. What is the speed in **m/min**? Then write the same speed in **m/s**.

WORK SPACE

_____ m/min · _____ m/s

A Sprint Card

Speed = distance ÷ time. Made-up Coral Cats players.

PLAYER	DIST (m)	TIME (s)	SPEED (m/s)
Nia Cruz	50	8.0	
Ben Holt	60	10.0	
Asha Kim	40	5.0	
Leo Park	80	12.5	
Tess Quinn	100	16.0	

Example: 50 m in 8 s → $50 \div 8 = 6.25$ m/s.

- 1 Fill in each player's speed in m/s. Round to **2 decimal places** when the answer is not a whole number.
- 2 Who is the **fastest** sprinter?
- 3 Which two players have the **same** speed?
- 4 List the five speeds from **greatest to least** (numbers only are fine).

B Pitch Problems

Lengths of the field and clean rate math.

- 1 A practice pitch is **100** m long. How many meters is **4** full lengths?
- 2 A player covers those **4** lengths in **80** seconds. What is the speed in m/s?
- 3 At **8** m/s, how many meters does a player travel in **50** seconds?
- 4 A full pitch is **105** m long. How many seconds does it take to sprint it at **7** m/s?

C Unit Switch

Convert carefully before you multiply or divide.

- 1 How many **minutes** does it take to jog **2.4 km** at **8 m/s**?
(1 km = 1000 m.)

WORK SPACE

min

- 2 **Sam Ortega** runs at **6.5 m/s** for **45** seconds. How many meters does Sam run?

WORK SPACE

m

- 3 Convert Sam's distance from question 2 into **kilometers**. Do not round.

WORK SPACE

km

- 4 In **5** minutes at **4.5 m/s**, how many meters does a player cover? (5 minutes = 300 seconds.)

WORK SPACE

m

Answer Key (for teachers & parents)

Answers for **Soccer Pace & Distance**, with the work shown where it helps. Print pages 1 and 2 for students, and keep this page for checking.

Page 1 Problems

1. **240 m** (6×40)
2. **5 m/s** ($300 \div 60$)
3. **80 s** ($400 \div 5$)
4. **170 m** (8.5×20)
5. **4 m/s** ($9600 \text{ m} \div 2400 \text{ s}$)
6. **8 s** ($100 \div 12.5$)
7. **Tie** (both 210 m)
8. **300 m/min · 5 m/s** ($4500 \div 15$)

Quick score

Page 1 problems	_____ / 8
A · Sprint Card	_____ / 4
B · Pitch Problems	_____ / 4
C · Unit Switch	_____ / 4
Total	_____ / 20

A · Sprint Card

1. **6.25; 6; 8; 6.4; 6.25**
2. **Asha Kim** (8 m/s)
3. **Nia & Tess** (both 6.25)
4. **8; 6.4; 6.25; 6.25; 6**

Skills practiced

Distance = rate $\times$ time Unit conversion Decimals
Comparing rates Multi-step problems

Teaching tip: Have students rewrite every problem with units before calculating. Circle whether they are solving for **d**, **r**, or **t**, then pick the matching formula.

B · Pitch Problems

1. **400 m**
2. **5 m/s**
3. **400 m**
4. **15.0 s** ($105 \div 7$)

C · Unit Switch

1. **5 min** ($2400 \div 8 = 300 \text{ s}$)
2. **292.5 m**
3. **0.2925 km**
4. **1350 m** (300×4.5)