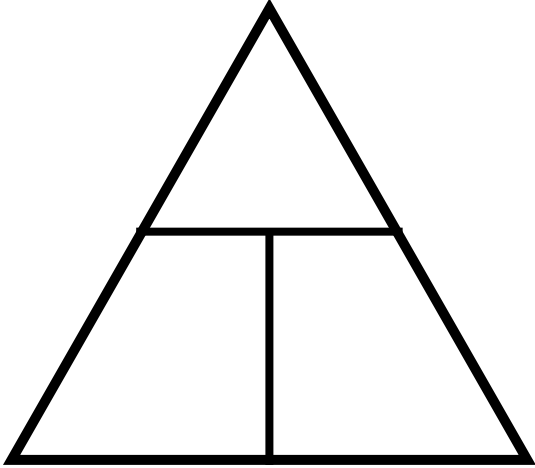


Name:

Date:

# CALCULATING ACCELERATION



What is acceleration?

**a**

**v**

**u**

**t**

Key terms

a. A car starts from rest and accelerates at a constant rate. After 8 seconds, it reaches a velocity of 24 m/s. Calculate the acceleration of the car.

b. A train is moving with an initial velocity of 10 m/s. It accelerates at a rate of  $2 \text{ m/s}^2$  for 15 seconds. What is the final velocity of the train?

c. A car is traveling at a constant speed of 30 m/s. It comes to a stop by applying brakes with a deceleration of  $5 \text{ m/s}^2$ . How long does it take for the car to come to a complete stop?