



Dependent & independent variables

GRADE 6 MATH

Name _____

Date _____

Do this on your own — the worked example shows what to do. Name both variables first; final answers in the boxes. One skill: **dependent and independent variables**.

WORKED EXAMPLE

Independent = the one you choose. **Dependent** = the one that responds, written alone on the left. At \$6 per ticket: $c = 6t$. A table of x and y is the same rule, listed row by row — check the rule against EVERY row.

1. Tickets cost \$6 each. Write an equation for cost c and tickets t , then find c when $t = 7$.

FLUENCY

Show your thinking

Answer

2. Complete the table for $y = 5x$ at $x = 1, 2, 3, 4$.

FLUENCY

Show your thinking

Answer

3. A cyclist rides at 45 km/h. Write an equation for distance d and time t , then find d at $t = 6$.

FLUENCY

Show your thinking

Answer

4. Each book weighs 1.5 kg. Write an equation for total weight w and number of books b , then find w when $b = 8$.

APPLICATION

Show your thinking

Answer

5. A tutor charges \$20 to start plus \$4 per hour. Write an equation for cost c and hours h , then find c when $h = 6$.

APPLICATION

Show your thinking

Answer

6. For $y = 9x$, find y when $x = 7$, and say which variable is independent.

APPLICATION

Show your thinking

Answer

7. Pens come 11 to a pack. Write an equation relating the number of pens e and packs d , then find e when $d = 9$. Explain how you decided which variable goes on the left.

REASONING

Show your thinking

Answer

8. For $y = x + 18$, find y when $x = 12$. Explain why this is not the same as $y = 18x$.

REASONING

Show your thinking

Answer