

Chapter 4 Test

Multiple Choice

For each question, select the best answer.

- Which is the solution for $2x - 3 = 7$?
 A 2 B 5
 C 12 D 8
- Which equation has the solution $m = -4$?
 A $3m + 7 = -5$
 B $m - 3 = 1$
 C $2m - 1 = -7$
 D $m + 2 = -6$
- The formula for area of a triangle is $A = \frac{bh}{2}$.
 Which is the formula rearranged to isolate h ?
 A $h = \frac{A}{2} + b$ B $h = \frac{b}{2A}$
 C $h = \frac{A+2}{b}$ D $h = \frac{2A}{b}$
- Alyssa is 3 years older than Jillian. The sum of their ages is 19. Which equation represents the sum of their ages?
 A $J + 3J = 19$ B $J + J + 3 = 19$
 C $3J = 19$ D $J - 3J = 19$

Short Response

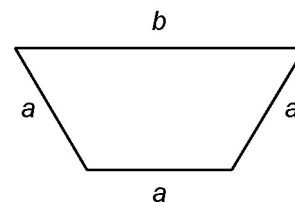
- Solve.
 a) $p + 4 = 6$
 b) $5m = -30$
 c) $7d - 4 = 17$
 d) $4x + 9 = 2x + 7$
 e) $b = 14 + 2(3 - b) + 1$
 f) $2(h + 2) + 7 = 5(h + 1)$

- Find each root.

a) $\frac{4a - 1}{7} = \frac{3a - 1}{5}$

b) $\frac{1}{3}(2k - 5) = 3$

- A trapezoid has three equal sides. The perimeter of this trapezoid is given by the formula $P = 3a + b$.



- Rearrange the formula to isolate b .
- Rearrange the formula to isolate a .
- The perimeter of the trapezoid is 32 cm and the length of side b is 11 cm. Find the length of a .

Extend

Show all your work.

- Solve, then check.
 $6 - 3(4k + 1) = 5 + (10 - 8k)$
- Lauren is 3 years older than Megan and Alyssa is 3 years younger than Megan. The sum of their ages is 42. How old is each girl?
- Campbell works for a cable company. He earns \$9.10 per hour, plus \$12.00 for each upgraded contract he sells.
 a) Last week Campbell worked 12 h and sold 5 contract upgrades. How much did he earn?
 b) On March Break, Campbell is scheduled to work 40 h. He hopes to earn \$640. How many upgrades does he need to sell?