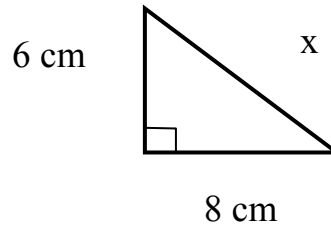


Algebra 1 – 3rd Edition – On-line Test 26 – July 2005

1. Find the length of side x in the triangle at right.

- [A] 7 cm [B] 6.928 cm [C] 14 cm
[D] 10 cm [E] None of these



2. Find the distance between the points (- 8, - 8) and (4, - 4)

- [A] 4 [B] $4\sqrt{2}$ [C] $4\sqrt{10}$ [D] 12 [E] None of these

3. Find the slope of the line that passes through (2, - 14) and (- 7, 4)

- [A] $-\frac{1}{2}$ [B] $\frac{5}{18}$ [C] - 2 [D] $\frac{9}{18}$ [E] None of these

4. Don is 10 kilometers ahead of Jane, and both are traveling forward. How long will it take Jane to catch up with Don if Jane is traveling at 10 k.p.h and Don at 6 k.p.h. ?

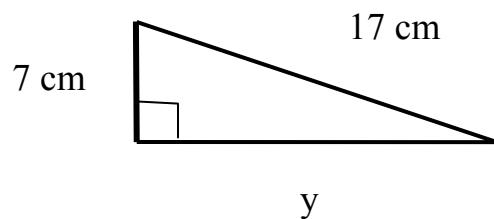
- [A] 1 hour [B] 2 hours [C] 2.5 hours [D] 0.625 hours [E] None of these

5. Round 45,678,432.8961372 to the nearest ten-thousandth.

- [A] 46,000,000 [B] 45,678,432.8961 [C] 45,670,000
[D] 45,680,000 [E] None of these

6. Find the length of side y in the triangle at right.

- [A] $4\sqrt{15}$ cm [B] $15\sqrt{15}$ cm
[C] 10 cm [D] $13\sqrt{2}$ cm [E] None of these

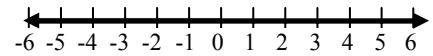


7. Add: $\frac{4y-3}{y^2-2y-35} - \frac{12}{y^2+5y}$

[A] $\frac{4y-15}{(y^2-2y-35)(y^2+5y)}$ [B] $\frac{20+11y}{y^2-2y-35}$

[C] $\frac{4y-15}{y^4+3y^3-45y^2-175}$ [D] $\frac{4y^2-15y+84}{y(y+5)(y-7)}$ [E] None of these

8. Which inequality is graphed on the number line ?



[A] $|x| > 0$ [B] $|x| \leq 0$ [C] $|x| \geq 0$ [D] $|x| < 0$ [E] None of these

9. Solve: $\frac{4}{p-3} - \frac{2}{p} = 0$

[A] \emptyset [B] $p = 1$ [C] $p = -3 \pm \sqrt{2}$ [D] $p = -3$ [E] None of these

10. Find the distance between the points (5, 0) and (-1, 8)

[A] $4\sqrt{5}$ [B] $\sqrt{89}$ [C] 6 [D] $\sqrt{12}$ [E] None of these

11. Find m: $\frac{4n}{ab} - \frac{c}{m} = x$

[A] $m = \frac{abc}{4n-abx}$ [B] $m = \frac{1}{4}ab\left(x - \frac{c}{m}\right)$ [C] $m = \frac{4cn}{abx}$

[D] $m = cx - \frac{abc}{4n}$ [E] None of these

12. A car left the house traveling north at 10 A.M. Another car left the house traveling south two hours later. If the cars traveled at the same rate and were 550 miles apart at 4 p.m., what was the rate of each car ?

- [A] 46.83 m.p.h, 44.83 m.p.h. [B] 91.67 m.p.h.
[C] 10 m.p.h [D] 55 m.p.h [E] None of these
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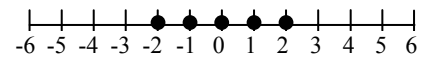
13. Pa got in his '29 Ford and started driving west from Jackson at a constant speed of 30 miles per hour. An hour later Ma got in her '31 Buick and started driving west from Jackson at a constant speed. After driving 4 hours Ma had passed Pa and was 10 miles ahead of him. How fast was Ma driving ?

- [A] 40 m.p.h. [B] 35 m.p.h. [C] 32 m.p.h. [D] 32.5 m.p.h. [E] None of these
-

14. Add: $\frac{x-3}{7x-14} - \frac{7}{x^2-5x+6}$

- [A] $\frac{1}{x^2-4x+4}$ [B] 0 [C] $\frac{x^2-6x-40}{7(x-2)(x-3)}$
[D] $\frac{x^2-6x+58}{7(x^2-5x+6)}$ [E] None of these
-

15. Which equation is graphed on this number line ?
(Domain = {Integers})



- [A] $|x| > -2$ [B] $-3 > |x| > 3$ [C] $|x| \leq 2$
[D] $|x| \geq -2$ [E] None of these
-

16. Round the repeating decimal 122.0146146146.... to six decimal places.

[A] 122.014601 [B] 122.014 [C] 122.014600

[D] 122.014615 [E] None of these

17. Find the distance between (0, 12) and (- 9, 0)

[A] 3 [B] 21 [C] 15 [D] $1\frac{1}{2}$ [E] None of these

18. Solve: $\frac{x}{x-4} - \frac{3}{8} = 0$

[A] $x = 8$ [B] $x = -\frac{12}{11}$ [C] $x = 3$ [D] $x = \frac{12}{11}$ [E] None of these

19. Find b: $\frac{5a}{c} - y - \frac{d}{b} = z$

[A] $b = \frac{d}{-5z + y + z}$ [B] $b = d\left(-\frac{5a}{c} + y + z\right)$

[C] $b = \frac{cd}{5a - cy - cz}$ [D] $b = d\left(-\frac{c}{5a} + y + z\right)$ [E] None of these

20. Simplify: $2\sqrt{80} - 2\sqrt{20}$

[A] $4\sqrt{5}$ [B] $2\sqrt{60}$ [C] 4 [D] $4\sqrt{15}$ [E] None of these
