

## Summer Packet for Algebra II

**Evaluate each expression.**

1)  $6^2 - (5 - 1) \cdot 2$

2)  $3 \cdot 6 \cdot (3 \cdot 2) \div 6$

3)  $(17 - (3 + 5 - 6)) \div 3$

4)  $6(2 + 2) - \frac{5}{5}$

5)  $\frac{1 + 1 + 1}{5 - 2}$

6)  $\frac{13 - 5}{4 - (5 - 3)}$

**Simplify each expression.**

7)  $4(m - 3) + 10m$

8)  $-10k + 2(k - 8)$

9)  $(8 + 7v) \cdot 2 + (4 + 3v) \cdot 6$

10)  $(b - 3) \cdot 10 + (5 + 4b) \cdot -2$

**Solve each equation.**

11)  $312 = -8(5b + 1)$

12)  $-1 - 7(2 + 5n) = -85$

13)  $-4(2x + 7) - 5x = -5 - 2(4 + 7x)$

14)  $4 + 7(-7 - 3n) = -5(5n - 3)$

**Find each product.**

15)  $(8m + 7)(6m - 3)$

16)  $(5v - 7)(v + 1)$

17)  $(v + 1)(8v + 1)$

18)  $(7b + 3)(3b - 3)$

**Solve each question. Round your answer to the nearest hundredth.**

19) It takes Mei 11 hours to pick forty bushels of apples. Sarawong can pick the same amount in 8 hours. Find how long it would take them if they worked together.

20) Kristin left home and traveled toward the recycling plant at an average speed of 20 km/h. Gabriella left sometime later traveling in the same direction at an average speed of 30 km/h. After traveling for four hours Gabriella caught up with Kristin. Find the number of hours Kristin traveled before Gabriella caught up.

**Write the slope-intercept form of the equation of each line.**

21)  $6y + 16x - 18 = 0$

22)  $0 = -12y + 12 + 9x$

23)  $-3y + 4 = -2x$

24)  $y - x - 3 = 0$

**Write the slope-intercept form of the equation of the line described.**

25) through:  $(2, 1)$ , parallel to  $y = -\frac{2}{7}x - 2$

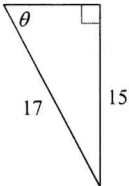
26) through:  $(-3, 4)$ , parallel to  $y = -\frac{4}{3}x - 2$

27) through:  $(4, -3)$ , perp. to  $y = \frac{2}{3}x + 4$

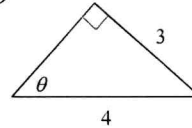
28) through:  $(3, 0)$ , perp. to  $y = x + 2$

**Find the value of the trig function indicated.**

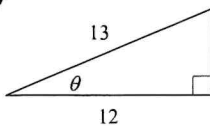
29)  $\cos \theta$



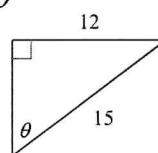
30)  $\cos \theta$



31)  $\tan \theta$

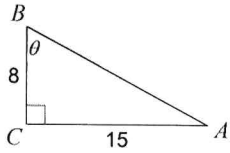


32)  $\sin \theta$

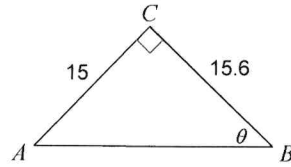


Find the measure of each angle indicated. Round to the nearest tenth.

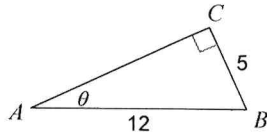
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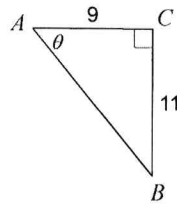
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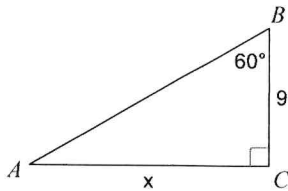


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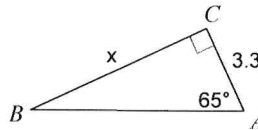


Find the measure of each side indicated. Round to the nearest tenth.

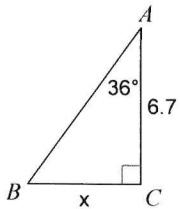
37)



38)



39)



40)

