

8-28-13

3rd Trig

Solve for variable SAT

If $\boxed{2x-1} = 9$, what is $10x-5$?

45

Simplifying

$$\textcircled{1} a^3 \cdot a^4$$

↓ ↓

$$a \cdot a \cdot a \cdot a \cdot a \cdot a = a^7$$

$$\textcircled{2} (3a^2)(-2a^2)$$

↓ ↓

$$3 \cdot a \cdot a \cdot -2 \cdot a \cdot a$$
$$-6a^4$$

$$\textcircled{3} (a^4)^2$$

↓ ↓

$$a^4 \cdot a^4$$
$$a \cdot a \cdot a \cdot a \cdot a \cdot a = a^8$$

$$\textcircled{4} (-2a^2b^3)^2$$
$$-2a^2b^3 \cdot -2a^2b^3$$
$$-2 \cdot a \cdot a \cdot b \cdot b \cdot b \cdot -2 \cdot a \cdot a \cdot b \cdot b \cdot b$$
$$4a^4b^6$$

$$\textcircled{5} a^2 \cdot b^3 \cdot a \cdot b^3$$
$$a \cdot a \cdot b \cdot b \cdot b \cdot a \cdot b \cdot b \cdot b$$
$$a^3b^6$$

$$\textcircled{6} (-2a^4b)^3$$
$$-2a^4b \cdot -2a^4b \cdot -2a^4b$$
$$-2 \cdot a \cdot a \cdot a \cdot a \cdot b \cdot -2 \cdot a \cdot a \cdot a \cdot a \cdot b \cdot -2 \cdot a \cdot a \cdot a \cdot a \cdot b$$
$$-8a^{12}b^3$$

$$\textcircled{7} (2ab)(-2ab)$$

$$-4a^2b^2$$

$$\textcircled{8} (-3ab^{100})^2$$

$$-3ab^{100} \quad -3ab^{100}$$

$$9a^2b^{200}$$

$$\textcircled{9} (-2a^2b^3)^2$$

$$-2a^2b^3 \cdot -2a^2b^3$$

$$-2aabb^3 \cdot -2ca^2bb^3$$

$$4a^4b^6$$

^{SAT} $\textcircled{10}$ If $x = 3(x+y)$, what is an expression for x in terms of y ? get x by itself

$$x = 3(x+y)$$

$$x = 3x + 3y$$

$$\begin{array}{r} -3x \quad -3x \\ \hline \end{array}$$

$$\frac{-2x}{-2} = \frac{3y}{-2}$$

$$-\frac{3}{2}y$$

8-26-13
4th Trig

Solve for a Variable SAT

If $\boxed{2n-1}^5 = 9$, what is $10n-5$?

45

Simplify

$$\textcircled{1} a^3 \cdot a^4$$

↓ ↓
a·a·a a·a·a·a
 a^7

$$\textcircled{2} 3a^2 \cdot -2a^2$$

↓
 $3aa \cdot -2aa$
 $-6a^4$

$$\textcircled{3} (a^5)^2$$

$a^5 \cdot a^5$
aaaaa aaaaa = a^{10}

$$\textcircled{4} (-4a^2b)^2$$

$-4a^2b \cdot -4a^2b$
 $-4aab \quad -4aab$
 $16a^4b^2$

$$\textcircled{5} a^4 \cdot b^2 \cdot a^{10} \cdot b^3$$

$a^{14} b^5$

$$\textcircled{6} (-3ab)(2ab)$$

$-6a^2b^2$

$$\textcircled{7} (-2a)(2a)$$

$-4a^2$

$$\textcircled{8} (-2x b^3)^3$$

$$\begin{array}{r} -2x b^3 \quad -2x b^3 \quad -2x b^3 \\ -2x b b b \quad -2x b b b \quad -2x b b b \\ -8 x^3 b^9 \end{array}$$

SAT
 $\textcircled{9}$ If $x = 5(x+y)$, what
is the expression for
 x in terms of y ?

\downarrow
 $x =$

$$x = 5(x+y)$$

$$\begin{array}{r} x = 5x + 5y \\ -5x \quad -5x \\ \hline \end{array}$$

$$\frac{-4x}{-4} = \frac{5y}{-4}$$

$$x = \boxed{-\frac{5}{4}y}$$